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PRINCIPLES OF MIDWIFERY, OR PUERPERAL MEDICINE.

BY

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THE THIRD EDITION,
ENLARGED AND ILLUSTRATED WITH ENGRAVINGS.

FOR THE USE OF STUDENTS.

To me be Nature's volume broad display'd,
And to peruse her all-instructive page
My sole delight. THOMSON.

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BRITISH MUSEUM
15 JUL 63

TO

HER GRACE

THE

DUCHESS OF BUCCLEUGH,

NOT MORE ILLUSTRIOUS FOR HER RANK,

THAN AMIABLE FOR

HER CONJUGAL AND MATERNAL VIRTUES;

THE FOLLOWING TREATISE

IS INSCRIBED,

WITH ALL DUE OBSERVANCE,

BY

THE AUTHOR.

EDINBURGH LYING-IN HOSPITAL



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15 63
JUL

HIS PUPILS TO THE AUTHOR.

Viro eruditiſſimo ingenioſiſſimoque

JOANNI AITKEN, M. D.

Colleg. Reg. Chirurg. Socio, Chirurgo in Noſocom. Regal. Edinens; Anatom. Chirurg. et Artis Obſtetricæ Prælectori, &c. &c.

PRÆCEPTOR SPECTATE,

NOS, artis obſtetricæ alumini tui, nomina quorum huicce chartulæ ſubſignata ſunt, hancce opportunitatem, noſtras gratias ſinceras tibi proferendi, non carpere non poſſumus.

Durantibus prælectionibus tuis, noſtris votis tam bene reſpondiſti, ut hocce parvum pignus, obſervantiæ noſtræ, erga te haud parvæ, proponere, nos et decet et delectat.

Etinem non dubitare poſſumus, quin, tuis præceptis memoratis, et rite in praxi applicatis; artem obſtetricam, multo cum honore nobiſmetipſis,

nobiſmetipſis, atque commodo puerperis infantibuſque, noſtra ſub cura degentibus, feliciter proſequamur.

Ubicunque terrarum, ſive ſub Polis, ſive rectis Phœbi radiis, Fortuna nos collocaverit, omnes opportunitates, tuæ famæ diffundendæ, alacriter arripiemus.

Diu vivas et floreas, et quicquid incrementum exiſtimationis atque ſelicitatis unuſquiſque annus revolvens tibi afferat *.

Datum Edinburgi 12. *Kal. Maii*, 1784.

* This letter, entirely unſolicited, is ſubſcribed by forty-ſix gentlemen, partof the ſpring audience 1784.

THE AUTHOR TO HIS PUPILS.

GENTLEMEN,

I Am happy that I have the honour ſo ſoon * to preſent to you theſe PRINCIPLES of MIDWIFERY in a *third* and *enlarged* edition.

This work exhibits, in comparatively a ſmall compaſs, a more extenſive and elementary view of our art than is to be found in any ſimilar publication in this country that I know of.

I doubt not that you will join with me in thinking, that the engravings are highly uſeful for illuſtration: ſuch of them as are not originals, are taken from the greateſt maſters; RUYSCH, ALBINUS, HALLER, SUE, BAUDELOCQUE, SMELLIE, HUNTER, BRAMBILLA, PLENCK, LEAK, &c.

I deſpair not to render the whole performance more worthy of your notice, in conſe-

* The firſt was publiſhed in April 1784.

quence

quence of increaſing experience, of more ma-ture reflection, and, above all, of your friendly communications, which to me ſhall ever be moſt acceptable.

In Midwifery, as well as in every part of Medicine, I have invariably aimed at *improvement*; the particular attempts I leave to your recollection *; how far they have been ſucceſsful, you muſt determine.

I deem no circumſtance in my life more flattering and honourable than your unexampled patronage, whether I conſider your *number* or your *eminence in ſcience*.

Not to be ambitious to retain and enhance your friendly ſentiments, would be a conduct mean and unworthy in the laſt degree.

Be aſſured, the poſſeſſion of your favour is to me a darling object, which I ſhall unrelentingly purſue by every fair, liberal, and manly exertion, of which I am capable.

* Liſt of Improvements.

I have

I have the higheſt ſatisfaction thus publicly to mention, that the EDINBURGH LYING-IN HOSPITAL, which owes its eſtabliſhment, and hitherto its exiſtence to you, is proſperous beyond my moſt ſanguine hopes, and promiſes to be an extenſive and permanent aſylum to many unfortunate and deſtitute individuals, in circumſtances claiming the moſt tender attention *; and at ſame time to become a uſeful ſeminary of obſtetrical knowledge: from which ſociety muſt derive the moſt happy fruits.

Your good ſenſe has always been eminently conſpicuous in the decorum and humanity of your conduct as PUPILS of this Hoſpital, for which every degree of encomium I can offer is not too great.

It would be acting directly in contradiction to my feelings, and to gratitude, ſhould I not cheerfully embrace this occaſion moſt ſincerely to thank you, "O ET PRÆSIDIUM ET DULCE "DECUS MEUM!" for your ſplendid and di-

* Nearly three hundred women have been delivered ſince the opening of this hoſpital, about three years ago.

ſtinguiſhed attention; the deep impreſſion it has made, the hand of death can alone eraſe from the heart of,

GENTLEMEN,

Your moſt devoted and faithful

friend and ſervant,

JOHN AITKEN.

EDINBURGH ANATOMICAL THEATRE,
March 1, 1786.



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PRIN-

PRINCIPLES

OF

MIDWIFERY.

INTRODUCTION.

MIDWIFERY, or PUERPERAL MEDICINE, is that part of the healing art which facilitates parturition or birth; or affords requisite assistance in the puerperal state.

This art is founded on an accurate knowledge of the

1 Structure,
2 Functions,
3 Diseases

Of the parts of the mother and child, as far at least as these are interested; and therefore consists in,

A 1 Anatomy,

1 Anatomy,
2 Physiology,
3 Pathology.

Which I shall briefly consider in order.



PUERPERAL

PUERPERAL ANATOMY.

PUERPERAL ANATOMY principally attends to,

1 The bones of the pelvis,
2 The parts it contains.

The bones of the inferior part of the trunk are called bones of the pelvis, or baſon, becauſe they incloſe the cavity ſo named.

The parts contained in the pelvis, are the genital or uterine ſyſtem, the bladder of urine and the under end of the inteſtinal canal, or rectum.

The Bones of the Pelvis.

The pelvis is the bottom of the abdomen, or lower belly; conſequently, it is before, and ſomewhat below the ſpine or back-bones, and above the thighs.

The bones incloſing the pelvis make an irregular ring, and conſiſt in the adult of four pieces:

Os ſacrum, or ſacred bone.
Os coccygis, or rump bone.
Two Oſſa innominata, or nameleſs bones.

The os ſacrum and os coccygis, placed one above the other, form the back part; the oſſa innominata incloſe the ſides and fore part.

Os Sacrum.

Os ſacrum, viewed before or behind, is triangular; the moſt acute angle is loweſt, blunt, and joined to the os coccygis.

The middle of the ſide oppoſite to this angle, the higheſt point, is joined to the ſpine, or chain of bones, named vertebræ; it projects conſiderably into the pelvis, like a promontory *.

The other ſides are partly articulated with the oſſa innominata.

The anterior ſurface, in which are ordinarily five pairs of holes, being hollowed, is termed concavity.

Theſe holes communicate with a large triangular canal, which runs nearly through the whole length of the bone.

The like number of ſmaller holes on the poſterior convex, and rough ſurface, alſo open into this canal.

Os Coccygis.

Os coccygis, is like the os ſacrum, the holes, canal, articular ſurfaces on the ſides, and inferior angle excepted.

* Plenck's Elem. Art. Obſt. 12.
Baudeloque's L'Art des Accouchmens, tom. 1. p. 122. He calls it La ſaillie du ſacrum.

The

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The ſide oppoſite to its point is articulated with the os ſacrum, by which the concavity of the pelvis is augmented.

The general anatomiſt deſcribes both theſe bones as the inferior pyramid of the ſpine, under the denomination of falſe vertebræ, alluding to the pieces of which they are compoſed in the young ſubject, and to their concretion; and comparing them to thoſe of the ſuperior pyramid of true vertebræ, which are ſeldom united by oſſification *.

Oſſa Innominata.

Each os innominatum, during early life, plainly conſiſts of three pieces, which, before puberty, become one, *viz.*

1 Os ilium, or haunch-bone,
2 Os iſchium, or hip-bone,
3 Os pubis, or ſhare-bone.

Os Ilium.

This is uppermoſt and largeſt.

The circular edge, which forms the contour of the haunch, is creſt or ſpine.

The anterior part of this ſpine, and a protuberance about an inch and half below it, are ſuperior and inferior ſpinous proceſſes.

A prominent line, ſtretching from the upper ſide of the os ſacrum to the os pubis, is

* Winſlow's Expoſition Anatomique.

linea innominata *: this is a ſhare of the brim, or ſuperior boundary of the pelvis.

The hollow between this line and the creſt, which is a part of what ſome call the great pelvis, is foſſa iliaca §.

Its articular ſurface is joined with the os ſacrum.

The ſemicircular hollow or notch, on the hind edge, is formed into a large hole by the ſacro-iſchiatic ligaments.

Os Iſchium.

This is undermoſt.

Its inferior part, on which the body is ſupported when ſitting, is tuberoſity, (tuber iſchii).

On the back part, above the tuberoſity, is the ſpine, (ſpina iſchii); a ſharp proceſs, that points to the adjacent edge of the os ſacrum.

The ſpines are leſs diſtant from one another than the tuberoſities.

A proceſs, or ramus, ſtands obliquely forwards from the tuberoſity, about an inch and a half in length, and unites with a ſimilar one from the os pubis; a curvature or notch is formed by them, and makes about half of the circumference of a large oval or thyroid hole, (foramen thyroidæum vel ovulare), turned ſomewhat forwards and downwards ||.

* Plenck's Elem. Art. Obſt.
§ Baudelocque's L'Art des Acouchemens.
|| Plenck's Elem. Art. Hiſt.

Os

Os Pubis.

This is foremoſt.

The anterior end is joined to its fellow.

The upper edge is turned a little outwards like a lip.

The back end is united with the os ilium.

The continuation of the linea innominata is ſeen on its upper ſurface, and is a part of the brim of the pelvis.

A ſlender proceſs ſlants downwards and backwards to join with that of the os iſchium; theſe complete the thyroid hole.

This proceſs, with its fellow, form the curvature angle or arch of the pubes.

The urethra, or paſſage of the urine, lies in the upper part of this arch; while the bladder is ſupported on the ſmooth interior ſurfaces of the oſſa pubis turned obliquely upwards.

The place of union of theſe three pieces of the os innominatum is diſtinguiſhed by the acetabulum, a cup-like cavity, which receives the head of the thigh-bone.

Articulation of the Bones of the Pelvis.

The oſſa innominata are connected immoveably behind to the os ſacrum, by means of a griſtly ſubſtance, of conſiderable thickneſs.

This

This ſort of articulation is ſymphyſis or ſynchondroſis.

The joinings of the oſſa illia with the os ſacrum are ſacro-iliac or poſterior ſymphyſes; and that of the os pubis with one another is anterior ſymphyſis or ſymphyſis pubis: in the laſt a particular diſpoſition of the connecting matter has been ſuppoſed *.

No relative motion takes place among theſe bones in the healthful ſubject, notwithſtanding contrary aſſertions §.

The os ſacrum and os coccygis are likewiſe joined by ſymphyſis, but ſo looſely as to permit occaſionally a degree of forward and backward motion of the point of the laſt; by which the concavity of the pelvis behind is proportionally varied, as well as its inferior aperture.

Ligaments of the Bones of the Pelvis.

Ligaments are perhaps productions of the perioſteum, which is a denſe membrane that covers the bones.

A lateral || ligament on each ſide, is extended from the tranſverſe proceſs of the laſt lumbar vertebra to the ſpine of the os ilium.

Below, from each ſide of the os ſacrum, two ſacro-iſcihatic ligaments go to the oſſa

* London Med. Obſ. and Inquiries, vol. ii. p. 333.
§ Duverney's Anatom.
Camper's Demonſtrat. Anat. Pathol.
|| Simmons' Anatomy of the Human Body.

iſchia

iſchia; the anterior is attached to the ſpina iſchii; the poſterior, the largeſt and ſtrongeſt, is inſerted into the tuber iſchii.

Theſe ligaments, thus croſſing one another, leave an opening between their anterior extremities, which becomes a hole by the aſſiſtance of the os iſchium, and tranſmits the tendon of the obturator internus muſcle, on its way to the thigh-bone; at ſame time they form the poſterior great notch of the os ilium into a hole for the tranſmiſſion of blood-veſſels and nerves to the leg.

Each thyroid hole is nearly cloſed by a ligament, named obturator ligament.

Ligamentous fibres are variouſly ſtretched acroſs the ſymphyſis pubis, ſo as to ſtrengthen that joint.

A part of the tendon of the external oblique muſcle of the abdomen, improperly called Paupart's or Fallopius' ligament, is extended on each ſide, between the ſuperior ſpinous proceſs of the os ilium and lip of the os pubis, by which and the adjacent bone, a large ſpace is incloſed; through it veſſels and nerves are tranſmitted to and from the leg, and that kind of hernia or rupture, called femoral, chiefly incidental to women, is formed.

Form of the Pelvis.

A preciſe acquaintance with the form of the pelvis is intereſting in every view; becauſe,

in a great degree, on the relation between this and the ſhape of the child, depends ſucceſsful delivery.

The pelvis may be conſidered as a great paſſage or hole, incloſed principally by the irregular zone or circle of bones already deſcribed; its form is altogether peculiar; and is various in various parts.

The line bounding its ſuperior aperture is the brim; that circumſcribing its inferior one, is the bottom.

The brim is formed by the upper ſide, or edge of the os ſacrum, lineæ innominatæ, and ridges of the oſſa pubis, already adverted to.

The margin of its bottom, irregularly waved and ſerpentine, is formed by the rami or arch of the oſſa pubis, the oſſa iſchia, the ſacro-iſchiatic ligaments, and os coccygis.

The brim does not much reſemble any regular figure; it approaches ſomewhat to an oval placed tranſverſely between the oſſa illia. This circumſtance is chiefly the effect of the projection of the promontory of the os ſacrum; for otherwiſe it inclines a great deal to a circle.

The middle portion or that which is immediately within the brim is nearly circular.

The inferior aperture, conſidered as bounded by the oppoſite points of the bones that approach the moſt to one another, namely, the os coccygis, and ſymphyſis pubis, and ſpinæ iſchiorum, is almoſt circular.

The

The tuberoſities, and a conſiderable ſhare of the oſſa iſchia, are really under the bottom.

The Axes of the Pelvis.

Attention to the axes of the pelvis is conſequential in theory as well as in practice.

It may be conſidered as having two axes; one in the ſuperior, the other in the inferior aperture *.

A line equidiſtant from the oppoſite points of the brim is the axis of the ſuperior aperture.

This makes an acute angle of about twenty-three degrees with the general axis of the body; and protracted upwards, it paſſes through the umbilicus, or navel, and during advanced pregnancy conſiderably higher.

The axes of the inferior aperture is likewiſe a line equidiſtant from the oppoſite points already deſcribed; protracted downwards, it paſſes through the anus, or a little before it.

Theſe two axes extended backwards, cut one another in, or a little beyond the os ſacrum; if joined by a curved line equidiſtant from the ſides of the pelvis, they mark what may be called the path of the child's head, or the line in which its central point is moved during parturition.

* Baudelocque's L'Art des Accouchment, tom. 1. p. 3.

When the body is reclined to a middle degree between the ſitting and lying attitudes, the brim of the pelvis becomes nearly horizontal, and the ſuperior axis perpendicular.

The hand, or chirurgical inſtuments, ought to coincide with theſe axes; the ſuperior one being nearly that of the uterus, or the line in which it riſes during the gravid ſtate.

The Dimenſions of the Pelvis.

It is by no means ſufficient, to a juſt and ſcientific practice of midwifery, to acquire a general notion of the form of the pelvis; its dimenſions muſt be preciſely aſcertained; for this purpoſe its diameters fall to be conſidered.

A line ſtretching from the promontory of the os ſacrum to the ſymphyſis pubis, ſo as to divide the brim into halves, is the ſhort, direct, or conjugate diameter, (diameter recta vel conjugata.)

A line cutting the ſhort diameter at right angles, and dividing the brim into halves, is the long or tranſverſe diameter, (diameter tranſverſalis.)

A line extended from nearly the poſterior ſymphyſis of the one ſide, to the junction of the os ilium, and os pubis, of the other, is the oblique diameter, (diameter obliqua); ſometimes ſtiled its diagonal *.

* Pleńck Elem. Art. Obſt.

The

The diameters of the inferior aperture obtain the like appellations.

The depth, various in various points, is greateſt at the hind, and leaſt at the fore part.

Authors differ conſiderably about the quantities of theſe dimenſions.

Dr. SMELLIE, who has been generally copied by the writers of this country, gives out the following:

Brim.

	Inches	Eighths
Long diameter,	5	2
Short,	4	2

Bottom

Coccyx to ſymph. pubis,	5	0
Tuber iſchii to tuber iſchii,	4	2

Depth.

Back part,	5 or more	
Sides,	4	0
Fore part,	2	0

Dr. STEIN's dimenſions, calculated to the *Pariſian* ſcale, are *.

Brim.

Conjugate diameter,	4	2
Tranſverſe,	5	0
Oblique,	4	2

* Plenck's Elem. Art. Obſt. p. 14.

Bottom

Bottom

The conjugate diameter, when the inferior extremity of the os coccygis is nearly an inch puſhed backwards, amounts to 5 inches.

M. BAUDELOCQUE found the following dimenſions *.

Brim.

	Inches	Eighths
Short or ſmall diameter,	4	0
Long or great,	5	●

Bottom.

Conjugate diameter,	4	0
Tranſverſe,	4 or more	

Depth.

Behind,	5	●
Sides,	3	4
Fore part,	1	4

Angle or Arch.

Top, nearly	1	4
Bottom,	3	4
Height,	2	0

* L'Art des Accouchmens, vol. 1.

The

The mean dimenſions of four pelveſes, which I accurately meaſured, were:

	Inches	Eigths
Brim		
Long diameter,	5	3
Short,	4	6
Bottom		
Conjugate diameter,	3	6
Tranſverſe,	4	1
Angle or Arch		
Tuber from tuber, fore part,	3	4
Depth		
Back part,	4	1
Sides,	3	3
Fore part	1	4

The external dimenſions of the pelvis covered by the ſoft parts, according to M. BAUDELOCQUE, are,

1 From the upper point of the os ſacrum, to the loweſt end of the os coccygis, four to five inches:

2 From the ſpinous proceſs of the laſt lumbar vertebra, to an oppoſite point before the ſymphyſis pubis, ſeven to eight, the female ſuppoſed to be moderately corpulent:

3 The

3 The diſtance of the anterior ſuperior ſpinous proceſſes from one another, eight to nine inches.

A proper plan of menſuration in the living ſubject, is a matter of the higheſt conſequence.

The Genital Syſtem.

This conſiſts of

1 Teſtes, or ovaria,
2 Uterus, or womb,
3 Tubæ Fallopianæ, or uterine tubes,
4 Vagina uteri, or paſſage,
5 Os externum, or pudenda.

The Ovaria.

The ovaria are ſituated one on each ſide, near the brim, in the extremities of its long diameter.

Theſe organs a good deal reſemble teſticles in their form and other circumſtances; and accordingly were ſo denominated very generally by the ancients *.

They are tied each by a ſhort ligament to the bottom of the uterus, and covered by the peritoneum, or lining membrane of the belly.

* Caſſeri Tab. Anat. xix. NN. xx. xv. The word Ovarium is not employed by this author.

This

The covering is ſmooth and unbroken in the young ſubject; but, in the adult, it is often covered with rents, or ſcar-like marks, correſponding to duſky ſubſtances within, named corporea lutea *.

Veſicles, about fifteen in number, conſiſting of a pulpy membrane, are diſcoverable among the cellular and vaſcular ſubſtance of the ovaria; which, being ruptured, become corpora lutea §.

Blood veſſels, called ſpermatic, ſimilar in origin, courſe, and form, to thoſe ſo named in the male, are beſtowed on the ovaria.

The Uterus.

The uterus, or womb, reſembles a flattened ovoid, and is ſituated more or leſs in the ſuperior axis of the pelvis.

This organ has

1 Fundus, or bottom,
2 Corpus, or body.
3 Cervix, or neck.

The bottom is uppermoſt.

The flattened ſides of the body are turned to the os ſacrum and os pubis reſpectively.

* Halleri Prim. Lin Phyſiol. ſect. DCCDLXXVIII.

§ ---------- ſect. DCCXLXI. In ovario etiam teneræ virginis ſedent bullæ rotundæ, membrana pulpoſa, firmula, factæ celluoſis fibris, undique ad ovaria adnexæ, quæ coagulabili lympha replenter, incerto numero, quindecem in uno ovario et ultra, &c.

Its edges coincide with the tranſverſe diameter of the pelvis.

The cervix, about an inch and half long, is uſually terminated by two eminences, one before and one behind, ſeparated by a tranſverſe chink or rima.

This chink is the orifice by which the uterus communicates with the vagina; the eminences project a little like the ſnout of the tench, therefore ſometimes called os tincæ, but oftener os uteri internum, or internal orifice of the womb, in diſtinction to the external one.

From the middle of the rima, a contracted paſſage leads to a ſmall triangular cavity, very limited in its extent from the fore to the back part, and joins the inferior angle of this cavity.

The ſide oppoſite to this angle correſponds to the fundus.

Each of the other angles is perforated by an uterine tube.

A ſhare of the fore part of the body, the whole of the bottom, and hind part, are covered by the peritonæum.

The anterior portion of its body and neck, not inveſted by this membrane, are in immediate contact with the bladder of urine; a circumſtance deſerving to be well remembered in the detection and management of ſeveral diſeaſes.

The

The uterus is of conſiderable and pretty equable thickneſs. It conſiſts of

1 A thick membrane, which has been ſuppoſed to be muſcular, interwoven with the numerous blood-veſſels:

2 A lining membrane, more or leſs ſmooth, reflected through the os internum, and continued along the cavities of the uterine tubes.

The uterus is connected looſely to the ſides of the pelvis and adjacent parts, by

1 Ligaments,
2 Cellular ſubſtance.

A doubling of the peritonæum, extending from its edges to the ſides of the pelvis, nearly in the courſe of the tranſverſe diameter, are its broad ligaments, or ligamenta lata.

From the lateral points of its bottom, two cord-like ſubſtances, round ligaments, or ligamenta rotunda proceed, one on each ſide, along the brim of the pelvis, to the rings of the abdominal muſcles, through which their extremities paſs a little.

Theſe are in a conſiderable degree vaſcular *; and ſeem to regulate its poſition during the gravid ſtate §.

The fore part of its cervix is connected with the bladder by cellular ſubſtance.

In a few caſes this organ has had two cavities, or been double.

* Dionis Chirurgie.
§ Winſlow's Expoſition Anatomique.

Fallopian Tubes.

Theſe go off from the lateral angles of the cavity of the uterus, tranſverſely, in a waving manner, each covered or inveſted by a fold of the correſponding broad ligament.

Their terminations, near the brim of the pelvis, are turned ſomewhat back towards the ovaria.

Theſe are trumpet-like, and ſurrounded with a fringe or border, reſembling foliage *, abſurdly called morſus Diaboli.

The ſize, at the termination, is equal to that of one of the wing-feathers of the ſmaller birds. It gradually diminiſhes towards the uterus, which it penetrates by a winding courſe.

They are covered by the broad ligaments between the round ones and the ovaria.

I have found them in concretion with the ovaria, and ſometimes impervious.

Vagina Uteri.

This is a tube five or ſix inches long, very capacious and diſtenſible.

The upper extremity, continuous with the ſubſtance of the uterus, embraces the os internum in ſuch a manner that this projects a little, and can be diſtinctly felt by the finger. Accordingly, aſcertaining the ſtate of it is a

* Halleri Faſciculi

principal

principal object of touching, or the exploratio obſtetrica, to be afterwards explained.

From the os internum, the vagina is continued forwards and downwards, nearly along the inferior axis of the pelvis.

The termination named external orifice of the womb, or os uteri externum, is ſituated between and almoſt equidiſtant from the anus and arch of the oſſa pubis.

It forms, with the uterus, a very obtuſe angle, almoſt coinciding with the axes of the pelvis *; a circumſtance that makes its poſterior ſide a little longer than the anterior one.

Like the uterus, it conſiſts of

1 A denſe exterior membrane, evidently continuous with that of the uterus at its upper part, and the cutis vera, or true ſkin, at the inferior one; but much leſs vaſcular than the former:

2 A lining membrane, continuous with that of the uterine cavity, and with the cuticula or ſcarf-ſkin.

Thus it appears, that the vagina and uterus are productions, or internal proceſſes of the common integuments, under ſpecial modification.

The inflection of theſe by the os externum is obvious.

The interior ſurface, during the virgin ſtate, abounds with rugæ, or wrinkles, which

* Winſlow's Expoſition Anatomique,

are

are much altered or obliterated by child-bearing *.

Many glands, of the mucous kind chiefly, are ſcattered along the vagina and cervix uteri, in the latter ſituation, named veſiculæ Nabothi §; which ſeparate the defending and lubricating fluids.

The connection with the adjoining parts deſerves to be fully marked.

Before, it is in contact with the neck of the bladder, and the urethra through its whole length; and behind, with the inteſtinum rectum.

Os Externum.

This, ſtrictly ſpeaking, is the inferior part of the vagina; but the expreſſion is generally regarded as equivalent to pudenda, vulva, or ſinus muliebris.

The os externum begins with the mons veneris, a prominence of the integuments, placed upon the oſſa pubis, and ends about two inches before the extremity of the os coccygis.

Two prominent folds of the integuments, named labia magna, incloſe the ſides of this opening.

Theſe gradually loſe their prominence and ſize as they proceed to the poſterior part of the margin of the vagina.

* Halleri Faſciculi. This great and ingenious man has paid much attention to the roguſe condition.

§ Plenck's Elem. Art. Obſt.

At

At puberty the labia and the mons veneris begin to abound with hair.

Between their beginnings is apparent the point of the clitoris, covered more or leſs by a ſemicircular fold of the integuments, called præputium; both ſomewhat reſemble the penis, and are exquiſitely ſenſible.

Extending from the clitoris backwards, are two ſmall doublings of the integuments, of various length and projection, ſituated within, and generally concealed by the labia magna, called therefore labia minora, or nymphæ; they terminate at the anterior part of the vagina, and are very vaſcular.

Between their poſterior extremities, and immediately before the vagina, is placed the orifice of the urethra or paſſage of the urine, a tube continued from the bladder, ſomewhat more than an inch long, and equalling a ſwan's quill in capacity.

Behind this, and in contact with it, is the orifice of the vagina, or, in a ſtrict ſenſe, the os externum.

This opening is narrowed, generally till the ſexual commerce has taken place, by the hymen, a membranous border, or doubling of the integuments, of a ſemilunar or circular form*; its fragments are carunculæ myrtiformes.

* Halleri Faſciculi.

The

The whole of the os externum is extremely delicate, exceedingly vaſcular, and copiouſly ſtored with mucus and other glands, that furniſh fluids for protection.

The interſtice between the os externum and anus, about an inch long, is perinæum.

This is ſubjected to great diſtention during parturition.

A cavity between the vagina and perinæum is foſſa navicularis, and bounded laterally and behind by the fourchette *, which is ſeemingly ligamentous.

The vagnia is connected to the bottom of the pelvis, by a muſcle, called levator ani; and to the anus and os coccygis, by another named ſphincter ani: a continuation of this laſt, on each ſide of it, is conſtrictor cunni.

The Bladder.

This is an oval cyſt, placed between the uterus and oſſa pubis, and reſting upon the ſmooth inclined ſurface of theſe bones.

Like the uterus, it conſiſts of

1 Fundus, or bottom.
2 Corpus, or body.
3 Cervix, or neck.

The bottom is uppermoſt.

The body touches the cervix uteri with its hind ſurface, and oſſa pubis with its fore one.

* Smellie's Midwifery.

The

The neck is the contraction between its body and urethra, correſponding behind to the upper part of the vagina; and before to the arch of the oſſa pubis; ſo that the urethra adheres immediately to this arch.

The peritonæum, reflected backwards from the abdominal muſcles, about an inch above the oſſa pubis, covers a ſhare of the anterior part of the body, all the bottom, and almoſt the whole of the poſterior ſurface of the bladder, and then mounts upon the uterus.

It is attached to the oſſa pubis, and adjacent organs, chiefly by cellular ſubſtance.

Proximity muſt create a mutual affection of this organ and the uterus from diſtenſion, diſeaſe, &c.

Rectum.

It lies on the os ſacrum and os coccygis, to which it is fixed by cellular ſubſtance.

The anus, which is its termination, and ſhuts it like a valve, is ſituated about an inch before the point of the os coccygis.

The relation of the rectum and vagina has been already deſcribed.

From the vagina upwards it lies behind the peritonæum, ſo that a perforation may be made ſafely from the vagina into the peritonæal cavity, for the removal of aſcites or dropſy *.

* London Communications, No. xii.

The rectum is of great capacity, and when diſtended, it neceſſarily tends to the axes of the pelvis, and affects the ſtate and ſituation of the uterus and vagina, and in its turn is affected by them.

Mammæ.

The mammæ, or breaſts, more or leſs pyramidal and prominent from the fore part of the cheſt, are collections of milk-glands.

The numerous glands are connected by veſſels and cellular ſubſtance.

The cellular ſubſtance forms a kind of inveſtment or cyſt about them, looſely attached to the contiguous muſcle, ſo as to permit a degree of gliding. It adheres more cloſely to the integuments, particularly the areola or diſk about the papilla, or nipple.

The nipple is a bundle of the trunks of the excreting ducts of the milk-glands; it contains about twenty, and carries in its top the like number of correſpending orifices. The cellular matter binding them together is peculiarly elaſtic, and by corrugating them, performs, in ſome degree, the function of a valve, preventing ſomewhat the eſcape of the milk.

The diſk abounds obviouſly with ſebaceous glands for protection.

The milk glands begin to be evolved about the thirteenth and fourteenth years in this climate,

climate, and give proportional ſize to the breaſts.

The mammary and epigaſtric arteries furniſh blood to the glands.

Their abſorbent veſſels run to the axillary glands.

Theſe organs are by function intereſted in parturition and its conſequences.

The Gravid Uterus.

The puerperal anatomy neceſſarily extends to the gravid uterus.

The uterus is gravid when it contains the embryo, fœtus, or child.

This ſtate is termed gravidity, pregnancy, and utero-geſtation.

In proportion as the child acquires bulk, the uterus is diſtended in all its dimenſions; it ſtill, however, preſerves its former ſhape *.

The bottom, as pregnancy proceeds, riſes gradually above the brim of the pelvis, following nearly the direction of the axis.

By the fourth month it exceeds the oſſa pubis §, and at laſt reaches conſiderably above the umbilicus, puſhing upwards and aſide the adjacent bowels.

* Albina Tabulæ.
Roedereri Tabulæ.
Hunter's Gravid Uterus.
§ Plenck's Elem. Art. Obſt. p. 14.

The round ligaments, put ſomewhat on the ſtretch, regulate the poſition of its bottom in this elevated condition *.

The ovaria are drawn from their uſual reſidence within the pelvis.

The cervix is gradually raiſed and ſhortened, and its cavity proportionally widened, at laſt the prominences bounding the os internum are totally effaced.

During this change, the thickneſs is not much diminiſhed; the ſubſtance, however, becomes lax and ſpongy, and its veſſels much enlarged; a condition ſomewhat reſembling that which the common integuments acquire when gradually diſtended by tumour.

The fleſh-like appearance of the uterine ſubſtance has induced ſome authors to conſider it as a muſcular organ §; an idea by no means to be readily credited, becauſe is is repugnant to

1 Appearance in the unimpregnated ſtate,
2 Function,
3 Analogy.

The Child.

The fœtus has the following ſpecialities:

1 Umbilical chord,
2 Placenta,

* Dionis' Chirurgie.
§ Dr. Hunter's Gravid Uterus.

3 Membranes,

3 Membranes,
4 Liquor amnii;
5 Urachus,
6 Foramen ovale,
7 Ductus arteriosus,
8 Canalis venosus,
9 Unexpanded lungs;
10 Membrana pupilaris.

Umbilical Chord.

The umbilical chord, or funis umbilicalis, consists chiefly of

1 Two arteries,
2 One vein.

The arteries are direct productions or continuations of the hypogastric or internal iliac ones reflected, one on each side of the bladder. Running before the peritoneum, they gradually approach one another at the umbilicus (navel), which is a ring.

These arteries at the umbilicus, are in contact, pass through it, and proceed spirally along the chord, which is about two feet long, to its termination in the placenta, in which they are suddenly and minutely ramified.

The vein originates from the placenta at that part where the arteries enter it, and returns spirally to the umbilicus.

This large vessel passes through the umbilical ring, and is continued in an upward direction,

rection, before the peritonæum, to a cavity in the inferior ſurface of the liver, named ſinus portarum, where it joins the trunk of the vena portarum.

Theſe three veſſels, (the number is ſeldom varied) are connected by cellular matter, and covered by the integuments hereafter deſcribed.

Placenta.

The placenta, or uterine cake, is a vaſcular maſs, more or leſs circular, thickeſt in the middle, convex and lobular on the ſurface turned to the uterus, while it is ſlightly concave, or nearly plain, on the oppoſite ſide.

It is chiefly formed by the minute ramifications of the umbilical arteries and veins, which appear beautifully ſerpentine and prominent on the ſurface correſponding to the chord.

The lobes, or ſubdiviſions, correſpond to the trunks of their veſſels, by which they are formed.

By maceration they get the appearance of fine fringes or bruſhes.

The placental veſſels and their lobes are connected by cellular matter, which pretty completely covers, as with a lamina, the uterine ſurface of it.

By proper fluids injected, particularly quickſilver, the rout and motion of the blood in it can be imitated fully.

Membranes.

Membranes.

These form the cyst in which the child is inclosed, and resemble a distended bladder accurately filling the uterine cavity. These are two,

1 *Chorion*, which is outermost, and consequently is in contact with the uterus.

The adhesion to the uterus, which is slender, is formed by a cellular substance, which has been named spongy chorion *, and even regarded as a distinct covering, derived from the uterus, under the appelation of membrana decidua, and membrana decidua reflexa §.

This cellular substance never contains any fat or oil, and is evidently continuous with that of the rest of the body, in the same manner as the umbilical vessels are with the others.

The like continuity is to be remarked between the chorion and cutis vera, or true skin.

The placenta lies on the outside of this membrane, to which it closely adheres.

2 *Amnios*, which is innermost, comparatively thin, and is in contact with the chorion, to which it adheres through its whole extent by means of a very fine cellular substance.

It is a continuity of the cuticle or scarf-skin.

* Halleri Elem. Physiolog.
§ Dr. Hunter's Gravid Uterus, tab. xxviii.

Thus

Thus it appears that theſe membranes are a part of the integuments, and that the placenta and umbilical veſſels are a part of the vaſcular ſyſtem. They are indeed temporary and caducous, but analogous in this particular to ſome of the other parts, the teeth, the hair, &c.

The fœtus, thus conſidered, is a complete œconomy, and may juſtly be ſaid to be totus in ſe atque rotundus.

The placenta and membranes together are frequently called (ſecundinæ) ſecundines, after-birth, and after-burthen (l'arriere faix).

Theſe are rudimental parts.

SPALLANZANI, that ingenious and acute naturaliſt, has ſeen them in form of a pellucid veſicle in eggs before fæcundation and incubation *.

They ſeem to be as eſſential to the growth of the animal as the root is to that of the vegetable.

The fœtus has been conſidered as an ovum or egg §. The analogy either does not exiſt at all, or is not cloſe.

The chorion and amnios, delicate and pellucid, in general are eaſily torn.

Their blood-veſſels muſt be ſmall.

No nerves nor abſorbents have been diſcovered in them.

* Diſſertations relative to Natural Hiſtory, vol. ii p. 56. 159.

§ SMELLIE's Midwifery.

Liquor

Liquor Ammii.

This, commonly called waters, completely fills the cavity of the amnion.

Senſible qualities?
Quantity?
Source?
Conſtitment parts?
Changes?
Uſes *?

Urachus.

This is a tube that goes directly from the bottom of the bladder, between the umbilical arteries, and becomes impervious before it reaches the navel.

Foramen Ovale.

This is a large hole provided with a valve, in the partition of the auricles of the heart.

Duration?
Uſes?

Ductus Arterioſus.

This is a ſhort tube, forming a paſſage from the pulmonary artery to the aorta.

Duration?
Uſes?

* PLENCK's Elem. Art. Obſt.

Canalis Venoſus.

This tube ſtretches between the ſinus venæ portarum and vena cava.

Duration?
Uſes?

Unexpanded Lungs.

The lungs, unexpanded and comparatively heavy, ſink in water, before reſpiration takes place.

It does not follow that the ſwimming of the lungs, or their being lighter than water, is an infallible mark that the child to which they belonged had been born alive.

Attention to this circumſtance is of high importance in the anatomia forenſis, or judicial anatomy.

Membrana Pupillaris.

This is a delicate film in the pupil *.

Form of the Fœtus.

This is pyramidal; the head, being of greateſt circumference, is the baſe of the pyramid.

* Dr. GERARD of Liverpool, my ingenious friend, has lately publiſhed an inaugural diſſertation, in which the above, and other circumſtances of diſcrimination of the fœtus, are accurately treated.

The

The trunk and limbs may be tranſmitted through any opening by which the head has paſſed.

Situation of the Fœtus.

The bulk of the head ſeems to be inverſely as the age, and always bears a great proportion to that of the other parts, and may be a chief cauſe of its being very conſtantly turned downwards, or preſented to the os internum.

The abundance of the liquor amnii, during early pregnancy, favours the gravitation of the head, and permits the twiſting or entangling of the chord about the neck or limbs, and what is more remarkable the knotting of it.

Structure of the Skull at Birth.

The ſkull conſiſts of eight oſſifications, viz.

Os frontis (frontal bone), correſponding to the fore-head;

Two oſſa parietalia (parietal bones), anſwering to the crown (vertex), and neighbouring ſurface;

Two oſſa temporum (temporal bones), placed one on each ſide or temple;

Os occipitis (occipital bone), forming the hind-head and poſterior part of the baſe;

Os ethmoides (ethmoidal bone), ſituated in the fore part of the baſe, above the noſe; and

Os ſphenoides (ſphenoidal bone), completing the middle portion of the baſe.

Theſe are articulated by ſuture or ſeam (ſutura), of which ſeven portions have obtained ſpecific names.

That which connects the frontal bone and anterior extremities of the parietal ones, is coronal ſuture, and extends from temple to temple;

That which fixes the poſterior ends of the parietal bones to the occipital one, is lambdoidal ſuture, and is ſtretched from behind the temporal bone on one ſide, to the correſponding point of the other, and nearly coincides in direction with the coronal one;

That which runs between the parietal bones, from the coronal to the lambdoidal one, is ſagittal ſuture;

Thoſe which ſurround the temporal bones, are temporal ſutures;

That which incloſes the ethmoidal bone, is ethmoidal ſuture; and

That which joins the ſphenoidal bone to the contiguous ones, is ſphenoidal ſuture.

At birth theſe ſutures are not formed: their ſituations, however, can be diſtinctly traced.

The extremities of the future ſagittal ſuture, are remarkably deficient of bone, and therefore named anterior and poſterior openings of the head (bregmata, fontanellæ).

Form of the Head.

The human brain, and conſequently the head, is ovoid or egg-like.

The

The fore-head is the ſmall, and the hind-head the great extremity.

The long axis ſtretches from the one extremity to the other; and the ſhort one, cutting this at right angles, extends from ear to ear.

Dimenſions.

Theſe are various.

The mean ones, according to Plenck. are,

	Inches	Eighths
Long axis, -	4	0
Short - -	3	2 *

Two ſkulls, accurately meaſured, had

Firſt,

	Inches	Eighths
Long axis, -	4	7
Short - -	3	6

Second,

	Inches	Eighths
Long axis, -	4	4
Short - -	3	2

Mean Dimenſions,

	Inches	Eighths
Long axis, -	4	5
Short - -	3	4 §

* Elem. Art. Obſt.

§ The ſecond ſkull belonged to a twin.

The

The circumference behind the neck, by the crown, is nearly a circle, and corresponds to the bottom of the pelvis.

Size and Weight of the new-born Child.

		Inches	Eighths
1	Length, - -	18	0
2	Breadth at the ſhoulders,	5	2
3	Weight is ſix or ſeven pounds *.		

Connected with the puerperal anatomy are the important operations

1 Catheteriſm.
2 Touching.

Catheteriſm.

This is the introducing of a proper tube, or catheter, into the urethra and bladder, with a view to diſcharge urine.

Catheter, its form and ſize?
Poſture?

The male practitioner ought to be capable to perform it without inſpection.

* PLENCK's Elem. Art. Obſt.

Touching.

Touching.

This operation (exploratio obſtetrica) diſcovers the exiſtence or degree of

1 Pregnancy,
2 Parturition,
3 Diſeaſe.

The finger is cautiauſly directed to the os internum, that the condition of the uterus may be known, while the patient is in the ſtanding or recumbent poſture.

A preciſe acquaintance with the anatomy is indiſpenſible.

PUERPERAL PHYSIOLOGY.

PUERPERAL PHYSIOLOGY proposes for its principal object the explanation of the functions and uses of the female organs.

The chief are,

1 Menstruation,
2 Generation,
3 Parturition.

Menstruation.

Menstruation is a periodical discharge of blood from the uterus.

This remarkable function of the female economy is entitled to special attention.

Term.

The interval between two consecutive menstruations is about twenty-seven or twenty-eight days, so that it occurs about thirteen times during the year.

The

The effuſed fluid is called catamenia, menſes, menſtrual diſcharge, becauſe it is monthly; and on account of its regularity and connection with health, it is very commonly named courſes and flowers.

A ſmall fluctuation as to the term is conſiſtent with health.

Quantity.

The quantity, according to habit and other circumſtances, is various; in general it amounts to ſix, eight, or ten ounces, and often much more.

Quality.

The quality is healthful, and by no means vitiated *.

Duration.

Each menſtruation endures from three to eight or ten days; ſo that it proceeds leiſurely like an oozing or exſudation.

The time of life, at which it firſt occurs, is much varied, by climate, and other cauſes.

In the ſouthern latitudes, it happens as early as the eleventh year.

In this and other northern countries, it takes place about the fourteenth, and even eighteenth and twentieth year.

* LEVIT. chap. xv. 24. And if any man lie with a woman at all, and her flowers be upon him, he ſhall be unclean ſeven days: and all the bed whereon he lieth ſhall be unclean.

It is a mark of maturity.

The time of diſappearance is as various as as that of commencement: indeed, both depend on the ſame primary cauſes; an early commencement and diſappearance are connected.

It ceaſes in theſe climates about the forty-fifth or fiftieth year, with few exceptions.

It is ſuſpended during pregnancy and ſuckling; if it occurs in the former, it may be regarded as diſeaſe (Menorrhagia catamenialis *).

Source.

This is unqueſtionably the arteries which open on the ſurface of the lining membrane of the uterus.

Theſe appear to be the ſame with or very analagous to the exhalant ones, ſo abundant on all other portions of the ſurface.

Some authors have ſuppoſed the menſtruating veſſels to be peculiar in their ſtructure.

Symptoms.

It is often preceded by

1 Laſſitude,
2 Headach,
3 Pain,
4 Quick pulſe §.

* PLENCK's Elem. Art. Obſt.
§ FOSTER's Midwifery.

Cauſes.

Cauſes.

It is difficult to point out that ſtate of the veſſels of the the uterus, which is its proximate cauſe.

Plethora or fulneſs, is perhaps always much concerned.

To decide whether this be general or local, does not ſeem to be a point of much moment, for the difference is only that of a whole and a part.

It is exceedingly difficult to aſſign the occaſional cauſes of the return, at intervals ſo ſurpriſingly equal.

A reference to the changes of the moon is not a proper ſolution of this queſtion.

May they not be the ſame that give, in due ſeaſon, the vegetation, flowering, &c. of plants.

The final cauſe ſeems to be to preſerve a condition of the uterus favourable to pregnancy; becauſe, before its commencement, and after its diſappearance, and even during any remarkable irregularity, pregnancy does not happen.

Generation

Or the production of the fœtus, is the moſt aſtoniſhing fact in natural hiſtory; ac-

cordingly, in every age, it has been a darling ſubject of philoſophical reſearch.

It is much to be regretted that a juſt explication of an event ſo intereſting has not been obtained.

Generation comprehends

1 Conception,
2 Pregnancy.

Conception.

Conception, or impregnation, is the immediate formation or vivification of the fœtus.

Conditions.

The principal are,

1 Maturity,
2 Health,
3 Sexual commerce.

Place.

It ſeems to be certain, that conception is immediately tranſacted in the ovaria, theſe being the only ſeminal or proper genital organs on the part of the female.

The proofs are,

1 Turgeſcence of one or more veſicles,
2 Corpora lutea,
3 Fœtus in the ovarium.

Manner.

Manner.

The following theories have been propoſed to ſolve appearances.

1 A mixture of ſeminal fluids *.

This is ingeniouſly abetted by the COUNT DE BUFFON, who ſuppoſes, that, in conſequence of this mixture of the ſeminal matter, which he thinks abounds with organic molecules or living particles, derived from every part of the parents, the new ſyſtem is organized according to determinate laws of attraction, perhaps ſomewhat ſimilar to cryſtallization §.

2 One or more ova or eggs, formed and exiſting in the ovaria, are impregnated by one or more little animals (homunculi) in the male liquor ‖.

3 The rudiments of the fœtus (germen, ebauche) exiſt in the ovaria, and are excited to life and evolution by the male fluid as a ſtimulus **.

Theſe hypotheſes are not a little doubtful. The firſt is the moſt agreeable to the idea

* HIPPOCRATES and other venerable ancients have favoured this doctrine

§ Hiſtoire Naturelle, tom. II. chap. IV. The Count has made many expenſive and ſplendid experiments to illuſtrate his peculiar ideas; I ſhall be ſorry if I have miſtaken or diſtorted them.

‖ LEWENHOEK, HARVEY, GRAAF, SWAMMERDAM, and others, favour this ſentiment.

** M. M. VALISNERI, SPALANZANI, BONNET, &c. entertain this notion. See SPALANZANI's Diſſertations, already quoted.

of

of conception, being the inſtantaneous effect of the ſexual commerce.

The ſecond, which preſumes the exiſtence of numerous animalcules in the male fluid, to one or more of which the ovum, furniſhed by the female, only affords a nidus or ſituation favourable to growth, is unſatisfactory; becauſe the generation of theſe animalcules remains to be explained.

The third, which is founded on pre-exiſting germen, labours under the objection ſtated to the ſecond: for the generation of the germen remains to be explained.

The transference of parental likeneſs, and even diſeaſe, are not ſufficiently accounted for, on the ſuppoſition that the ſemen is a mere ſtimulus, and not a conſtituent matter.

Conception is an organizing act, perhaps depending ultimately on attraction; when therefore philoſophy accounts for the aſtoniſhing variety of organization and its effects, we may reaſonably expect ſome ſatisfactory theory of this important fact.

Number.

Although the human kind is uniparous, there is often a plurality of fœtuſes.

The range is from two to five, the low numbers oftenеſt occur *.

* HALLERI Phyſiolog. ſect. DCCCCXXIX. Non raro femina geminos fœtus parit; rarius paulo tres, neque unquam ſupra quinque.

Symptoms.

Symptoms.

1 Convulſive ſenſation about the uterus.
2 Micturition.
3 Langour.

Theſe ſigns are very fallacious, and often not obſerved *.

Pregnancy.

Pregnancy, gravidity, or utero-geſtation, is the exiſtence of the fœtus in the cavity of the uterus.

The fœtus formed in an ovarium, is generally tranſmitted by the uterine tubes to the uterus, to acquire due maturity.

It is not always thus tranſmitted, but remains in the ovarium, in a tube, or drops into the belly, and is extra-uterine.

Sometimes, in conſequence of rupture, it takes this laſt ſituation after it has been lodged in a tube or the uterus.

Term.

The child is commonly carried in the uterus two hundred and eighty days, or nine ſolar

* PLENCK's Elem. Art. Obſt.

months,

months, otherwiſe a miſcarriage or abortion is ſaid to happen *.

In this point a ſmall latitude takes place.

Stages.

1 Firſt, or incipient,
2 Laſt, or advanced.

The incipient ſtage comprehends the three firſt months.

Symptoms.

1 Suppreſſion of the menſes,
2 Swelling of the breaſts,
3 Sickneſs and vomiting,
4 Pica, vitiated appetite, or longing,
5 Paleneſs,
6 Increaſed ſize of the uterus,
7 Elevation of the os internum.

To theſe in the laſt ſtage are added,

1 Swelling of the hypogaſtrium;
2 Motion in the uterine region, perceived between the fourth and fifth months, called, by the women, the quickening;
3 Flatneſs of the umbilicus;
4 Obliteration of the cervix uteri, and os internum;

* HALLERI Phyſiolog. § DCCCCXXVII.-------PLENCK's Elem. Art. Obſt. p. 32.

5 Emaciation,

5 Emaciation, hence enlargement of the mouth, &c.

6 Swelling of the feet, &c.

Some of theſe are equivocal, our opinion is therefore to be founded on a plurality.

They all conſiſt in changes of

1 The whole ſyſtem,
2 The uterus,
3 The adjoining organs.

The ſource is,

1 Suppreſſion of the menſes,
2 Diſtenſion of the uterus,
3 Compreſſion of the adjacent organs *.

The firſt ſtage is not eaſily detected.

Diſeaſes that may be miſtaken for it are,

1 Dropſy,
2 Tympany,
3 Solid ſwelling.

* HALLERI Prim. Lin. § DCCCLXXX. This noble and illuſtrious Author ſeems whimſically enough to refer ſome of the ſymptoms to the abſorption of a part of the male fluid, become putrid in the cavity of the uterus. His words are, "Varias adfectiones incommodas nova mater eo "tempore patitur, quas credas eſſe a reſorpto ſemine maſ- "culino, ſubputrido et ſubalcalino. Fere enim ut ovi ran- "cidi devoratis particulis, ita a conceptione nauſea cietur, "etiam potiſſimum carnium, et vomitus, et puſtulæ aliquæ "erumpunt, denteſeve dolent. Majora incommoda et "tumori uteri, viſcera abdominis comprimentis tribuo, et "retentis menſibus.

An acquaintance with pathology leads to a certain diſcrimination.

The advanced ſtage is ſcarcely to be overlooked.

Nutrition of the Fœtus.

Three theories are propoſed to explain this circumſtance,

1 The liquor amnii ſwallowed and digeſted;

2 The mother's blood carried through continous veſſels;

3 The mother's fluids abſorbed by the placenta.

The laſt accounts beſt for the phænomena, and is ſupported by analogy.

1 The child lives after the liquor amnii is contaminated or diſcharged:

2 The headleſs fœtus grows:

3 The child remains healthy although the mother be conſiderably diſeaſed:

4 Continuous veſſels, of which none have been diſcovered, are not neceſſary *:

5 The

* I lately was requeſted to inject the veſſels of a woman who had died during parturition.

I made uſe of a ſolution of glue blended with vermilion, which many eminent anatomiſts think better calculated to enter the ſmaller veſſels than moſt other compoſitions.

Upon careful diſſection, it appeared that not a particle of the injection had entered the veſſels of the placenta or umbilical chord; both which I examined attentively. Some clots

5 The chick in the egg is fed by abſorbtion.

6 All animals are nouriſhed by it after birth:

7 Vegetables ſuck their food from the ſoil and air:

8 Paraſite plants abſorb from others.

It is not improbable, that a ſmall quantity of the liquor amnii is ſwallowed from time to time: it may have excellent effects.

The fœtus thus appears not only to have the faculty of attracting its food from the uterus, but of aſſimilating and nutritiouſly applying it, for it grows with aſtoniſhing rapidity, eſpecially during early life §, ſo that at birth its ſize and weight are as before ſtated.

clots of it were found between the uterus and the ſurface of the placenta.

This has been miſrepreſented to Dr. MONRO, becauſe he quotes it as an inſtance of injection having paſſed into the placenta, and even the umbilical chord, in proof of continuous blood veſſels, which, he affirms, exiſt between the uterus and placenta, and are the channels of nouriſhment.

It is ſurpriſing that a Gentleman of his ſuperior underſtanding ſhould ſo readily credit an unauthenticated narration: the keenneſs and ambition of ſyſtem, which are ſufficiently powerful to warp the judgment in moſt inſtances, can alone account for it.

A ſacred regard for truth is the only motive that makes me advert to this matter. I might otherwiſe remain very well contented with the ſeeming honour of having ſucceeded better in the injecting art, than any other anatomiſt I have ever converſed with, or heard of.

* HALLERI Phyſiolog.

Circulation of the Blood.

In general the blood circulates like that of the adult.

The chief peculiarities are,

1 Rate of motion, eſpecially in the placenta, where it is exceedingly ſlow.

2 Tranſmiſſion through the heart and lungs.

Excrements.

The food drawn from the mother is conſiderably animalized, and proportionally freed from excrementitious matter, and therefore affords but a ſmall quantity of

1 Inteſtinal fœces or meconium; none is ejected while in health;

2 Urine; perhaps contained wholly in the bladder and the urachus; the laſt is not continued to the placenta, nor to any alantois or cyſt;

3 Sweat or perſpirable matter; this is blended with the liquor amnii, which perhaps is itſelf a ſecretion from the ſurface of the fœtus.

4 Mephitic matter; perhaps returned to the mother.

Regimen

Regimen of the mother.

The delicacy of the gravid female's ſituation obviouſly requires every attention, that the fœtus may duly proceed to maturity.

This chiefly conſiſts in regimen, or a judicious regulation of

1 Air,
2 Diet,
3 Exerciſe,
4 Sleep,
5 Paſſions,
6 Excretions.

Superfœtation.

This is conception during pregnancy.

Its poſſibility is admitted by reſpectable authority *.

The ſuperfœtus may be in,

1 The ſingle and already gravid uterus;

2 The double one, previouſly gravid in one cavity;

3 The uterus, while another fœtus is extra-uterine §.

Much deception has taken place in this matter.

* HALLERI Phyſiolog. § DCCCCXXIX. Non dubium eſt, poſſe ſecundum ſetum concepi dum prior in utero eſt, &c.
§ PLENCK's Elem. Art. Obſt. p. 90.

Monſters.

Monſters.

Monſtroſity is an unuſual conformation of the fœtus.

Luſus naturæ, or deviations from the ordinary ſtructure, which happily are rare, may be

1 Deficiency of head, mouth, ears, arms, &c.

2 Redundancy of head (caput bicephalum), trunk (gemini concreti), arms *, &c.

3 Obſtruction

* LINDSAY OF PITSCOTTIE'S Hiſtory of Scotland, p. 160, 104.

" A bairn was born reckoned to be a man-child; but, " from the waſte up, was two fair perſons, with all mem- " bers and portraitures pertaining to two bodies, two " heads well-eyed, well-eared, and well-handed. The " two bodies, the one's back was faſt to the other's; but, " from the waſte down, they were but one perſonage, " and could not know by the ingine of man, from which " of the two bodies the legs and privy members proceed- " ed. Notwithſtanding the King's Majeſty cauſed take " great care and diligence upon the upbringing of two " bodies in one perſonage, cauſed nouriſh them, and learn " them to ſing and play upon inſtruments of muſic; who, " within ſhort time became very ingenious and cunning in " the art of muſic; whereby, they could play and ſing " two parts; the one on the treble, and the other on the " tenor; which was very dulce and melodious to hear. " The common people, who treated them alſo, wondered " that they could ſpeak diverſe and ſundry languages; " that is to ſay, Latin, French, Italian, Spaniſh, Dutch, " Daniſh, Engliſh, and Iriſh. Thir two bodies long con- " tinued, to the age of twenty-eight years; and the one " departed long before the other, which was dolorous " and heavy to the other; for which many required of " the other to be merry. He anſwered, " How can I be " merry,

3 Obſtruction of the rectum, &c. or anus imperforatus, &c.

4 Concretion of the fingers, &c. or webbing, &c.

5 Malformation of the lip, foot, &c. hence harelip, club-foot, &c.

" merry, that have my true marrow as a dead carrion " about my back, which was wont to ſing and play with " me. When I was ſad, he would give me comfort, and " I would do the like to him. But now I have nothing " but dolour of bearing ſo heavy a burden, dead, cold, " and unſavoury, on my back, which taketh all earthly " pleaſure from me in this preſent life: therefore I pray " to Almighty God, to deliver me out of this preſent life, " that we may be laid and diſſolved in the earth, where- " from we came."

" There was a bairn born which had both the kinds of " male and female, called in our language a Scarcht, in " whom man's nature did prevail; but becauſe his diſpo- " ſition and portraiture repreſented a woman, in a man's " houſe in Linlithgow, he aſſociated in bedding with the " goodman's daughter of the houſe, and made her to con- " ceive a child. Which being devulgate through the " country, and the matrons underſtanding this damſel de- " ceived on this manner; and being offended that this " monſtrous beaſt ſhould ſet himſelf forth for a woman, " being a very man, they got him accuſed and convicted " in judgment, for to be burnt quick for this his ſhameful " behaviour."

A tradeſman's wife at Roberſbridge, in Suſſex, was delivered by Mr. Noakes, a Surgeon and Man-midwife there, of a child who had two heads, four thighs, four legs, and four feet, but only one body. It is of the female ſex, and from the deſcription we had of it, ſomewhat reſembles a child born at Uchaton, in Flanders, deſcribed by Ariſtotle. Some ſmall ſigns of life, we hear, were diſcovered in one of its heads, when firſt born, but they almoſt inſtantly vaniſhed.

VAN DOVEREN has written a treatiſe on monſters of various kinds.

WALTER has publiſhed a diſſection of the double fœtus. ---See Obſervat. Anatom.

Dr. MONRO has done the ſame.---See Nervous Syſtem.

Cauſe.

Cauſe.

Till the generation of the perfect animal be accounted for, it muſt be highly abſurd to offer any theory reſpecting monſters.

Referring them in any degree to the working of the mother's imagination, is not only ridiculous, but pernicious; becauſe they occur among brutes, birds, and other orders of animals, and even among vegetables.

Parturition.

This is the expulſion of the mature fœtus from the uterus.

This event and its accidents are the grand objects of midwifery; here, however, they are to be conſidered merely in a phyſiological light.

Symptoms.

Parturition is preceded by,

1 A mucous diſcharge;
2 An irkſome ſenſation about the os internum;
3 Altered ſhape of the belly;
4 Membranous ſtate of the os internum;
5 Dilatation of the os internum;
6 Laxity of the vagina and os externum.

It

It is attended with

1 Pain in the loins and adjacent parts, increaſing at intervals;

2 Teneſmus, or downward preſſure accompanying the pain, and proportioned to it;

3 Tenſion of the belly, and retention of the breath, during the pain;

4 Diffuſed pain about the pelvis when the body is moved;

5 Deſire to void the urine and fæces, even when there is no accumulation;

6 Dilatation of the os internum, increaſed during a pain, ſo that the chorion may be felt.

Pains not of this deſcription are called falſe (dolores ſpurii).

When true and falſe concur, they are mixed pains (dolores mixti).

Cauſes.

Parturition takes place with wonderful exactneſs at the expiration of the term of pregnancy, notwitſtanding the very different ſizes of mothers and children.

A degree of fluctuation is ſometimes to be marked *.

* HALLERI Phyſiol. § DCCCCXXVII. Tempus partus nonis ſolaribus menſibus emenſis ingruit, in omnibus animalibus perinde definitum, etſi alquot ſeptimanis per ſuas cauſas, aut accelerari poteſt, aut retardari, &c.

An anticipation is premature birth (partus præmaturus).

A protraction is poſtmature delivery (partus ſerotinus)*.

Diſtenſion of the uterus is the exciting cauſe; but, in many caſes, this does not ſeem to exiſt, and it is difficult to diſcover others.

The diſtenſion is a ſtimulus, reſembling that of fæces in the rectum.

The reſpiratory and abdominal muſcles are thrown into ſtrong action, whereby the uterus is compreſſed, and the os internum diſtended.

This conſtitutes and is called a labour-pain or throe.

The pain which occaſions the complaining or crying, is the effect of the diſtenſion.

The contractility of the uterus, which is comparatively weak, is not ſo efficient as has been commonly ſuppoſed §.

This does not, by any means, reſemble muſcular action.

Progreſs.

The labour-pains become more and more frequent and ſtrong, and propel the head or other part of the child, towards the os internum.

* PLENCK's Elem. Art. Obſt.

§ HALLERI Phyſiolog. § DCCCXXVII. Uterus contractili vi fœtum conſtrictus urget, qui Solus etiam abſque auxu matris, fœtum non-nunquam expellit.

The

The membranes, eſpecially during a pain, are ſomewhat tenſe, like a bladder filled with water, and protruded through the os internum, now conſiderably opened.

Unſupported at this point, they burſt, and the liquor amnii is ſuddenly diſcharged, an event called by the women, the breaking of the waters.

The throes increaſe for the moſt part after the rupture of the membranes; becauſe the head, which is the part commonly preſented, is more cloſely applied to the os internum, and thus gives more irritation.

The head, with its vertex undermoſt, and the face turned to the mother's ſide, paſſes the brim, and is ſaid to be in the bones.

Shivering fits frequently enſue.

The reſiſtance at the poſterior part, and ſides of the pelvis, on account of their depth, compels the vertex towards the os externum, and the face towards the cavity of the os ſacrum.

The vertex ſoon diſtends the os externum and perinæum like a great tumour, ſo that the anus is dilated, and the rectum emptied.

The vertex moves forwards and upwards, the face emerges from the perinæum as from behind a large valve, and thus the head is born.

The mother's cries, during this event, are exceedingly ſtrong, and expreſſive of the racking anguiſh ſhe ſuffers.

The trunk and limbs, in conſequence of the proceeding contractions, are ſoon expelled.

The child is entirely paſſive during parturition; conſequently it is as readily performed when it is dead, as when alive.

About a pound of blood is ſuddenly diſcharged after the expulſion of the child, which ſeems to have been gradually poured out from the uterine veſſels, during the latter part of the proceſs.

Parturition is not completed till the afterbirth be diſcharged, becauſe it is a part of the fœtal ſyſtem.

The placenta, already ſomewhat diſengaged, before the child be expelled, is gradually looſened entirely, and thrown off by the uterine contraction chiefly.

This is effected with various expedition; moſt commonly within an hour or two; and is ſucceeded by a diſcharge of blood, often exceeding the quantity formerly effuſed.

This hæmorrhage gradually ſubſides, and for the moſt part diſappears within two or three days.

It is termed lochia, and lochial flux, and by the women the cleanſing.

Parturition is thus commonly finiſhed within twelve hours, a day, or a day and a half.

It is rather tedious, if it be protracted through two days.

When the lochial flux has abated, the breaſts begin to be more or leſs painful, hard,

and

and ſwollen, and ſometimes fever (febris lactea) ſucceeds.

Theſe effects reſult from the change of the milk-glands, now proceeding rapidly in their proper function.

Treatment of the Mother.

Parturition proceeding in the way deſcribed, is in every reſpect an action of health.

The accoucheur muſt not conſider the mother as under diſeaſe, and imagine that art is neceſſary.

It muſt however be admitted, proper management renders child-bed not only leſs irkſome, but leſs dangerous than it otherwiſe might be.

Chamber.

This ought to be large and well aired, at ſame time capable of being rendered cloſe and warm.

Bed.

This muſt be eaſily moveable from place to place.

The mattraſs not too yeilding, and covered on its upper ſide with oil-cloth, &c, gives obvious advantages.

The

The bed-clothes light, and tacked together, allow neceſſary changes.

Dreſs.

This ought to be ſuch as favours

1 Temperature,
2 Removal.

Poſture.

This may be

1 Sitting on a chair or ſtool of proper form *.

2 Kneeling on a bed;

3 Supine or lying on the back, with the breech projecting over the bed's edge.

4 Lateral, or reſting on the ſide, with the knees drawn upwards, and the whole of the body within the bed, and covered by the bed-cloths.

Diet.

This ought to be light, and of eaſy digeſtion.

Plenty of plain, weak, cold drink is equally proper and acceptable, on account of the thirſt cauſed by exertion, ſcreeching, &c.

* HEISTER, PLENCK, &c. give drawings of obſtetrical ſtools and chairs.

Temperature.

Temperature.

The uſual degree may be ſupported.

Excretions.

Attention to the ſtate of

1 The bladder,
2 The rectum,

Delivering.

There ought to be as little interference as poſſible. Officiouſneſs is not only odious, but injurious.

After the progreſs is known by touching, it is unſuitable to repeat this operation often.

Moderately ſupporting the perinæum, when much diſtended, although perhaps not ſtrictly neceſſary, is at leaſt innocent.

Drawing by the head, with a view to haſten the delivery, is both unneſſary and hurtful. It is ſufficient to ſupport and receive the child.

This remark applies fully to the birth of the placenta.

It ſeems to be unnatural and rigorous to confine the mother to bed during the whole proceſs; on the contrary, her feelings are ſoothed by riſing up and gently walking.

Compreſſing the belly by ſwathes or bandages, does not ſeem to be required by nature: if at all adopted, it ought to be in the ſlighteſt degree.

Paſſiveneſs

Paſſiveneſs or abſtinence from exertion, for a conſiderable time, is, in every view, likely to prove ſalutary *.

After-Pains.

Theſe are of various acuteneſs.

1 Cauſe?
2 Remedies?

Treatment of the Child.

The child is to be laid in an unconſtrained attitude, ſo that the month may be properly expoſed to favour reſpiration, now indiſpenſible to exiſtence.

The circumſtances which hitherto rendered this unneceſſary, and the cauſes of its eſtabliſhment immediately after birth, are points, which, notwithſtanding the ingenious labours of phyſiologiſts, admit of much illuſtration.

The Chord.

The temporary part of the child's ſyſtem, which would without doubt fall off ſpontaneouſly, is ſeparated by ſecurely tying the um-

* In the EDINBURGH LYING-IN HOSPITAL, the obſtetrical couch is ſo conſtructed, that the perſon lies upon it for a requiſite ſpace of time after the delivery, as if ſhe were in an ordinary bed.

bilical

bilical chord, about an inch or two from the umbilicus, and cutting it a little beyond the ligature *.

The remainder, lapped in ſoft rag, and laid along the belly, falls off in a few days.

The navel, for ſome time afterwards, may be covered with a bit of lint ſpread over with ſweet butter or oil §.

Viſitation.

This is a careful inſpection of the parts, particularly the outlets or paſſages, that, in caſe of malformation, the proper plan of cure may be adopted.

Applications.

It is too common to make improper applications, as well externally as internally: thus ſpirits are rubbed on the ſcalp; and ſalt, &c. adminiſtered to diſcharge the meconium.

The truth is, that nature ſeldom needs theſe; they therefore do violence and injury; for the changes the child is ſubjected to, ought to be gradual ‖,

* PLENCK's Elem. Art. Obſt. p. 67. He adviſes the tying to be made five or ſix inches from the navel.

§ In one caſe after the dead portion of the chord ſeparated, a hæmorrhage enſued, which it was ſcarcely poſſible to ſtay; indeed it produced fatal effects.

‖ GREGORY's Comparative View.

It is ſufficient to waſh off any filth with tepid water; and even this is not always neceſſary.

Dreſs.

This, made up of a few pieces of ſoft materials, capable to inſure due warmth, ought to give no unneceſſary conſtraint or preſſure, and to be put on with the utmoſt caution and tenderneſs.

Nurſing.

The food of the infant is the mother's milk, which may be given as ſoon as poſſible.

This meaſure is equally advantageous to both.

If neceſſity deprive the child of the natural ſupport that ought to be afforded by the mother, a proper nurſe muſt be procured.

Her qualities are,

1 Youth,
2 Health,
3 Proper breaſts,
4 Full ſecretion,
5 Watchfulneſs.

Cow's milk, infuſion of beef, &c. may be ſubſtituted inſtead of human milk, in caſe of neceſſity.

Theſe may be adminiſtered in ſmall quantity, at ſuitable intervals.

The rearing of infants without ſuckling, or by the ſpoon, as it is commonly called, as far as my obſervation extends, has been very unſucceſsful in this country: a great proportion periſh: indeed ſuch a violent deviation from the line of nature cannot take place with impunity.

Weaning.

Suckling is in general too much abridged, in oppoſition to the ſalutary and general principle mentioned above.

Weaning (ablactatio) ought to be gradual, that the digeſtive organs may be accuſtomed to retain and aſſimilate food much leſs animalized than the milk on which they had hitherto chiefly acted.

Inattention to this circumſtance occaſions too often fatal conſequences.

PUERPERAL PATHOLOGY.

PUERPERAL PATHOLOGY includes the hiſtory and cure of every ſymptom connected with child-bed, that partakes of a morbid nature, or can be regarded as diſeaſe.

Kinds of Parturition.

1 Ordinary,
2 Extraordinary.

The laſt is ſubdivided into

1 Lingering,
2 Præternatural.

Ordinary Parturition *.

This is the vertex preſented, and the proceſs expeditiouſly and happily completed.

It is altogether a healthful operation, and has been conſidered in the phyſiology.

* Synonymes---natural, common labour or travail.

Extraordinary

Extraordinary Partarition *.

This is labor remarkably deviating from the ordinary kind.

Lingering Parturition §.

This is delivery unuſually protracted, although the vertex be preſented.

Cauſes.

On the Part of the Mother.

1 Diſtortion,
2 Rigidity,
3 Obliquity,
4 Ceſſation,
5 Tumour,
6 Dropſy,
7 Diſtention,
8 Inflammation,
9 Spaſm,
10 Rupture,
11 Deformity,
12 Debility,

* Synonymes---dyſtocia, atocia, partus difficilis, uncommon, non-natural, difficult labour or birth.

§ Synonymes---laborious, non-natural birth. See SMELLIE, OSBORN, &c.

On the Part of the Child.

13 Monſtroſity,
14 Tumour,
15 Membranes,
16 Chord.

Theſe require the moſt accurate inveſtigation, that, by a judicious and ſolid practice, they may be removed, and their effects obviated.

Some of them are exceedingly formidable, and place the accoucheur in the moſt critical and trying ſituation.

---

1 *Diſtortion.*

This is deformity of the bones of the pelvis, whereby its uſual or ſtandard dimenſions are impaired.

Symptoms.

1 Curvature of the ſpine and limbs.
2 Detention at the brim, although the pains have been ſtrong.
3 Swelling of the ſcalp, or the ſugar-loaf or mould-ſhot head.
4 Narrowneſs.

Theſe

Theſe are diſcovered by inſpection, touching, and meaſuring internally and externally. The laſt is performed by

1 The hand,
2 A ſimple ſcale *,
3 A pelvimeter §.

Cauſes.

1 Rickets,
2 Rheumatiſm.

Manner.

The pelvis at its brim, is moſt frequently impaired in its ſhort diameter by the promontary of the os ſacrum, or the oſſa pubis, or both, projecting unuſually towards the axis.

At the bottom, it is altered in one or both diameters, by the mutual intruſion of the oppoſite points.

Degree.

The quantity of loſs is various.

* I have marked a ſcale of inches and parts on the female catheter, to meaſure the ſhort diameter; by this means the inſtrument anſwers a double purpoſe.

§ M. COUTELAY, of Paris, has invented an internal pelvimeter, to meaſure the ſhort diameter. See his table.

Dr. STEIN, of Heſſe-Caſſel, has contrived an external one.

I have deviſed a univerſal one, calculated for the internal and external meaſurement, in every way, and with eaſe and accuracy.

In

In ſome inſtances, not an inch of the ſhort diameter has been left *.

This can only be preciſely known by the pelvimeter, an inſtrument conſequently of the greateſt utility.

Effect,

Lingering is a neceſſary conſequence of narrowneſs.

The tranſmiſſion of a full-ſized living child becomes impracticable after the ſhort diameter is reduced below three inches §.

An inch and a half is a ſpace that barely allows piece-meal extraction, by the moſt dextrous uſe of inſtruments ‖.

Practice,

The mode of aſſiſtance muſt be judiciouſly accommodated to circumſtances, after a ſcrupulous examination.

While the birth of the living child is poſſible, any harſh interference is to be avoided. Indeed, till the pains, which are often unexpectedly ſucceſsful, have had a full exertion, every attempt to extract is premature.

* Eſſays and Caſes in Surgery, which I lately publiſhed.

§ I am willing to fix the point of impoſſible tranſmiſſion as low as may be.

One ſomewhat higher has been aſſigned:

"La diametere qui traverſe la tete d'un enfant a ſa "naiſſance a pour le moin trois pouces un quart." See ALPHONSE DU ROI, Recherches ſur la Section du Pubis.

‖ OSBORN on Laborious Parturition.

When

When the expulsive power is evidently weak, cautious assistance may be afforded by

1 The hand,
2 The lever,
3 The forceps.

1 *The Hand.*

The head, wedged in the brim, may be moved from side to side, by the hands, alternately introduced.

2 *The Lever* *.

1 Common or rigid §,
2 Living or flexible ‖.

After being gently heated by tepid water or otherwise, and done over with fine sweet oil, butter, or pomatum, it is guided along the hand (which being previously introduced serves as a conductor), with its concavity towards the axis of the pelvis, till it be certainly in contact with the head, or other part to which it should be applied, so as to include no part of the mother, and securely maintain its hold.

* The vectis or lever is ill-named; for it resembles a hand more than a proper lever.

§ The common one seems to have been invented by ROONHUYSE. See Memoirs de l'Academie Royale du Chirurgie. 8vo. tom. xvi.

‖ I have invented one, that, by turning a screw, becomes straight to facilitate its introduction.

It resumes a curvature exactly proportioned to the convexity of the part of the child on which it is applied; in consequence, its pressure is more diffused and less injurious.

I have taken the liberty to call it LIVING LEVER, because its motion resembles that of the fingers.

The exertion, or drawing is made in the direction of the inferior axis of the pelvis.

At firſt this is to be very gentle, and repeated at intervals, ſo as to imitate the pains.

It is exceedingly powerful, and at the ſame time more extenſively applicable than the forceps; for it may be uſed in every point of progreſs.

It is alternately applied to oppoſite parts, or counteracted by the hand, or by another lever.

3 *The Forceps.*

This inſtrument reſembles a pair of hands, calculated to catch the head, and urge it ſafely along.

It acts to moſt advantage when the head is ſo advanced that the face is in the cavity of the os ſacrum *.

* HIPPOCRATES mentions a forceps for extracting the dead child.

ALBUCASIS deſcribes one for delivering the living child.

CHAMBERLAIN is the firſt modern who introduced the inſtrument into general uſe.

SMELLIE improved the form of it.

LEVRET gave it a lateral curvature, ſomewhat ſuited to that of the axes of the pelvis.

LEAK added a third blade. See his introductory Lecture.

I have added a ſcrew to the handles, by which the cloſing is prevented, ſo that the head is protected.

I have improved the manner of locking or connecting the blades, ſo as to prevent the poſſibility of catching and wounding the mother's parts, or bruiſing the child.

I have likewiſe conſtructed this inſtrument on the principle of the LIVING LEVER, and of courſe named it LIVING FORCEPS; an improvement in many ſituations highly important.

The

It is introduced in the ſame way as the lever, blade after blade, and when duly applied the handles are tied together §.

Theſe inſtruments, however artfully and judiciouſly conſtructed, and cautiouſly managed, always do ſome injury; they are never, therefore, to be uſed without neceſſity.

The third poſture, before ſpecified, is the moſt favourable to a free uſe of them.

If the diſtortion be ſo great as to render the tranſmiſſion of a living child impoſſible, recourſe muſt be had to

1 Pelvitomy,
2 Embryotomy,
3 Hyſterotomy.

1 *Pelvitomy.*

This is the cutting of the ſymphyſis pubis to enlarge the pelvis, by permitting the anterior extremities of the oſſa innominata to recede from one another *.

§ FOSTER's Midwifery, p. 153.

* Synonymes---Sectio ſymphyſis pubis, ſynchondrotomia, Sigaultian operation, &c.

It was invented by M. SIGAULT of Paris, and ſucceſsfully performed in 1777, on Madame SOUCHOT.

The oſſa innominata were ſeparated ſomewhat more than

Purpoſe.

This is the preſervation of the child; it ought therefore never to be practiſed when this is impoſſible.

Indication.

This depends on attention to the

1 State of the child,
2 Degree of diſtortion.

This operation may be ſucceſsful, when about half an inch of addition to the ſhort diameter is ſufficient to allow delivery.

Performing it when a greater addition is neceſſary has diſgraced it.

It plainly appears to be incapable to ſuperſede embryotomy, much leſs the Cæſarean ſection, in all inſtances.

Manner.

The mother is placed in a ſupine attitude.

A longitudinal inciſion is made through the integuments and linea alba, extending from a

than two inches and an half, and a living child was born, although the pelvis was only two inches and a half in its ſhort diameter; the recovery was happy.

It has been performed nearly thirty times with various ſucceſs.

The lateſt inſtance was in Auguſt, 1784, at Paris.---The operator was M. DE MATHIIS. See London Medical Journal, vol. v. No. iii.

point

point about four inches above the ſymphyſis pubis, nearly to the orifice of the urethra, carefully avoiding the peritonæum.

This permits the ſeparation of the bones.

The cartilage or ſymphyſis, is next divided, ſo as not to wound the bladder and urethra.

If the pains be inſufficient to produce a due ſeparation, the thighs are drawn aſunder till this takes place, that the delivery may be completed.

The proper treatment of the wound is a circumſtance of great importance.

Objections.

1 The cartilage may happen to be oſſified *.

2 The neck of the bladder may be wounded §.

3 The ſpace gained in a narrow pelvis, may not be ſufficient for parturition.

4 The cartilages may not heal.

5 The ligaments may be torn ||.

6 The cellular ſubſtance between the bones and ſoft parts is dangerouſly deſtroyed.

* A flexible ſaw, which I have contrived to be uſed when there is oſſification, infallibly removes this objection.

§ I have invented a flexible knife, which cuts from within, outwards, and therefore obviates this objection.

|| LEAK's Diſeaſes of Women.

MICHEL's Synchondrotomia, p. 201. This author has treated his ſubject very fully.

7 The

7 The admiſſion of the air, to parts not calculated to reſiſt its impreſſion, is highly injurious.

8 The ſoft parts may be ſo compreſſed betwixt the child and the margins of the divided bones, as to cauſe dangerous conſequences.

9 It affords but a ſinall probability of ſaving the child *.

10 It is a ſevere requiſition from the mother ||.

---

2 *Embryotomy* §.

This is diminiſhing the ſize of the child by inciſion, that it may be tranſmitted through the narrow pelvis.

It is named,

1 Excerebration (excerebratio, cephalotomia) when it leſſens the head by extracting the brain;

2 Eviſceration (eviſceratio) when it diminiſhes the trunk, by diſcharging the contents of the breaſt and belly.

The firſt is moſt frequently performed.

* OSBORN's Laborious Parturition.
|| Dr. HUNTER's remarks.
§ Embryotomia, Embryulcia.

Indication.

Indication.

It is indicated when the diſtortion renders the delivery impoſſible by the methods already deſcribed, ſo as to ſave the mother's life, comparatively the moſt valuable.

It ought not to be too long poſtponed, when this circumſtance is aſcertained.

On the other hand, it is clearly not to be attempted, if the contraction exiſt to ſuch a degree as to render the extracting of the child impracticable.

Any ſpace leſs than one inch and an half of ſhort diameter, the breadth of the baſis of the child's ſkull, has this effect *.

Manner.

An inciſion or perforation is made into the moſt acceſſible part of the head, of ſufficient ſize to allow the brain to be broken down and diſcharged.

The head ſhrinks in conſequence of this evacuation, ſo that ſometimes the delivery, by the pains, happens ſoon afterwards: if not, it is to be extracted by inſtruments, viz.

* OSBORN's Laborious Parturition. He ſeems to ſet by far too low a price on the unborn child.

I am afraid leſt the ſpecious arguments of this ingenious author ſhould induce practitioners to recur to excerebation without proper warrant.

Perforating.

1 *Perforating*,

1 ALBUCASIS' formæ ſpatumiles,
2 MAURICEAU's perforator,
3 OULD's terebra occulta,
4 SIMPSON's ring-ſcalpel,
5 SMELLIE's ſciſſars,
6 DENMAN's perforator,
7 Embryotomy knife,
8 Finger-ſcalpel,
9 Flexible perforator.

2 *Extracting*.

1 ALBUCASIS' forma uncina ſimplex,
2 PARE's pes gryphii,
3 PARE's forceps longa and terſa,
4 Straight-hook, or crotchet (uncus),
5 Blunt-hook,
6 MAYNARD's crotchet,
7 MAURICEAU's tire-tete,
8 PLENCK's toothed forceps,
9 LEVRET's extractor,
10 Sciſſar-forceps,
11 Screwed forceps,
12 Lithotomy-forceps,
13 Flexible crotchet,
14 Flexible blunt-hook.

3 *Perforating-and-extracting*.

1 ALBUCASIS' almiſdach,
2 ALBUCASIS' miſdach,

3 ALBUCASIS'

3 ALBUCASIS' forfex,
4 PARE's extractor, or gryphii,
5 BURTON's extracting terebra,
6 Sciſſar-forceps.

In general, DENMAN's perforator and MAYNARD's crotchet are ſufficient *.

In proportion to the narrowneſs of the pelvis, ſome of the others may become neceſſary.

Hyſterotomy §.

This is the extraction of the child through an inciſion of the uterus.

Indications.

1 A pelvis too contracted to admit of delivery otherwiſe;

2 The ſudden death of the mother, while the child ſurvives.

3 Hyſterocele;

4 The vagina abſent, or above the oſſa pubis ||.

* A ſmall perforator and hook, fixed on the point of the living lever, convert it occaſionally into a flexible efficient perforator and crotchet, by this means the neceſſary inſtruments are rendered very portable.---See the plates.

§ Synonymes----Hyſterotomia, ſectio Cæſarea, ſectio Agrippina, the Cæſarean operation, and hypogaſtric ſection.

|| PLENCK's Elem. Art. Obſt.

Manner.

A longitudinal inciſion, beginning about two inches above the umbilicus, and ending at a like diſtance from the oſſa pubis, either in the linea alba, or a little to one ſide of it, ſo that the abdomen may be opened without wounding the contents.

A ſecond, that coincides with the direction of the firſt, through the middle of the anterior part of the body of the uterus, of ſufficient extent to permit the extraction of the child; which is to be effected as quickly as poſſible.

The wound of the abdominal parts is cloſed, and the lips retained in mutual contact, by the twiſted and dry ſutures *.

The os internum may be preſerved ſomewhat open for a little time afterwards, to allow any effuſed matter to run off.

This formidable operation, intended to ſave mother and child, has been performed during many centuries, with various ſucceſs §.

* AITKEN's Elements of Phyſic and Surgery, vol. ii. Gaſtroraphy.

§ MICHEL Synchondrotomia, p. 214. This author gives an extenſive hiſtory of hyſterotomia.

OSBORN's Laborious Parturition, p. 241. This ſenſible writer enters into a ſhort ſpeculation regarding the merits of the Cæſarean operation.

Would performing it while the parts are immerſed in tepid water, by ſecluding the air, tend to diminiſh its fatal effects?

In Britain it has never fully had the deſired effect, for all the mothers have died ||.

May not this and embryotomy be ſuperſeded by a pelvitomia nova? viz.

Two inciſions, one on each ſide, reaching to the oſſa pubis, as near the crural veſſels as ſafely may be, ſo that one may be diſtant from the other about four inches; and two correſponding to and touching the joinings of the rami pubis and iſchiorum.

The bones are then divided by the flexible ſaw, without wounding the peritonæum, bladder, urethra, or vagina.

Thus the ſegment of the pelvis becomes moveable, and yields to the preſſure of the child, ſo as to allow delivery.

If due attention be paid to the wound, may not the healing take place in ſuch ſort, that in future ſufficient capacity of the pelvis may be preſerved *?

When the pelvis is known to be diſtorted, ſo as to render the birth of a living child impoſſible, is it not lawful and proper to prevent the dangers of embryotomy, by inducing early abortion?

|| I ſaw it performed in the Royal Infirmary of this city: I have been informed that there was not a ſufficient indication.

The unhappy victim died about twenty-four hours afterwards.

* I am juſt now employed in trying the effect of this operation on brutes.

2 *Rigidity.*

This is an undue reſiſtance of the os internum or externum, or both.

It is chiefly found in the elderly female in child-bed for the firſt time.

Attentive touching detects it.

Remedies.

This affection for the moſt part gradually gives way to the continued preſſure.

Some diminution may be obtained by

1 Blood-letting, when the mother is vigorous;

2 Opium,—ol. anodynum *;

3 Emollients,—oil, tepid water, &c.

4 The hand as a ſpeculum uteri §;

5 Inciſion ||.

Emollients and the hand are ſafeſt, and moſt to be truſted to.

* R. ol. olivar opt. unc. iv.
Opii puri, drach. ii.
Terantur ſimul, ſ. a. ut fiat ſolutio. Pauxillum frequenter ori uteri interno applicetur.

§ The ſpeculum matricis of the ancients, particularly the vertigo Albucaſis, ſeems to have been partly intended for this purpoſe.

|| Smellie's Caſes.
Plenck's Elem. Art. Obſt.—A remarkable rigidity, or narrowneſs of the os externum, yielded without any extraordinary applications.

3 *Obliquity.*

3 *Obliquity.*

This refers to the poſition of the uterus, eſpecially of the os internum.

Such a degree of it as is capable to give lingering labour ſeldom exiſts.

It is moſt likely to take place in a backward direction, while the fundus is pendulous over the pubes, and receives the action of the expelling muſcles unfavourably.

Remedy

Replacing the fundus as much as may be, and ſupporting it by flannel ſwathes, is all the redreſs this caſe admits of.

---

4 *Ceſſation.*

This is want of pains.

Cauſes.

1 Diminiſhed ſtimulus,
2 Weakneſs, from long exertion.

Remedies.

When it depends on the firſt, in conſequence of a change of the ſtate of the child,

or os internum, the pains ſpontaneouſly return; they may, if neceſſary, be rouzed by

1 Dilatation,
2 Stimulant injections *.

When it flows from the ſecond (the pulſe and the complexion are the ſureſt marks) we muſt adminiſter

1 Nouriſhing food;
2 Cordials.

---

5 Tumour.

This is polypus, or a fleſh-like maſs which ſometimes obſtructs the vagina.

It is eaſily diſcovered, and muſt be removed, as afterwards taught §.

---

6 Dropſy.

Abdominal dropſy ſometimes exiſts with pregnancy.

Remedy.

After careful enquiry into circumſtances, the fluid may be diſcharged §.

* R. Aquæ fontanæ unc. x.
Sacch. nonpurificat. unc. ii.
Sal. marin, unc. ſs. bene miſceantur.

§ Syſtematic Elements of Surgery.

7 Diſtenſion.

7 *Diſtenſion.*

This refers to the ſtate of the bladder and rectum.

Theſe organs, when overcharged, occupy more than due ſpace, and proportionally retard delivery.

Remedies.

1 Injections,
2 Catheteriſm.

---

8 *Inflammation.*

Inflammation of the parts immediately affected by parturition neceſſarily makes it painful anh lingering.

Remedies.

Antiphlogiſtics muſt be diligently employed, as afterwards explained.

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9 *Spaſm.*

Convulſive ſpaſmodic or crampiſh affections, whether general, or only of particular parts, proportionally lengthen the time of delivery.

Remedies.

Remedies.

A full enquiry into cauſes leads to a judicious application of antiſpaſmodics, as mentioned hereafter.

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10 *Hernia.*

Rupture containing the gravid uterus, is called hyſterocele.

Remedy.

Hyſterotomy.

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11 *Deformity.*

Deformity of the vagina or os externum, eſpecially as to place or capacity, is a cauſe of lingering child-bearing.

Remedies.

1 Dilatation by
The hand,
The knife.
2 Hyſterotomy.

The vagina communicating with the rectum, gives the partus per anum.

12 *Debility.*

12 *Debility.*

This, in a high degree approaches to death, and neceſſarily ſuſpends parturition.

Cauſes.

1 Flooding
2 Mortification.

Remedies.

Delivery, if practicable, may be completed as taught.

The death of the mother before delivery, and the child ſurviving, afford an indication for hyſterotomy.

On the Part of the Child.

13 *Monſtroſity.*

This may ſo increaſe the volume of the fœtus as to render delivery tedious.

It is diſcovered by touching.

Remedy.

Extraction by the crotchet (obſtetricium hamatile), may be reſorted to without much regret.

14 *Tumour.*

This proportionally impedes delivery.

The ſwelling principally alluded to is local dropſy; indeed, no other has been obſerved to have the effect mentioned.

1 Hydrocephalus,
2 Aſcites.

Hydrocephalus.

This is dropſy of the head, and is,

1 External, or between the ſcalp and ſkull;
2 Internal, or in the ventricles of the brain *.

Both theſe are diſtinguiſhed by

1 Softneſs,
2 Size.

The laſt may be accurately aſcertained by the cephalometer §.

Remedy.

We are, in the firſt inſtance, always to preſume that it is external, and, with the finger-ſcalpel, make an inciſion cautiouſly through

* WHYTE on Hydrocephalus.

§ STEIN's Opera. This ingenious author calls the inſtrument labimeter. I have taken the liberty to call it cephalometer, in alluſion to its uſe.

the

the ſcalp only; becauſe, when it is external, the child will thus be preſerved.

If it afterwards appear that it is internal, embryotomy is requiſite.

The embryotomy-knife may be employed.

Aſcites.

This is dropſy of the belly.

It delays delivery by impaction, after the upper parts of the trunk are born.

Remedy.

A perforation is made by means of a proper trocar; perhaps it may be moſt ſafely paſſed within the cheſt, ſo as to pierce the diaphragm.

---

15 *Membranes.*

Theſe when uncommonly denſe, tend to protract the labour, like tumour, by confining the liquor amnii.

This circumſtance is eaſily diſcovered by touching during a pain.

Remedy.

This is puncturing the moſt acceſſible part by the finger-ſcalpel, &c.

16 *Chord.*

This, ſhortened by being twiſted about the child, retards the delivery by retracting the head after every pain.

Remedy.

While the head is in the vagina, the chord cannot be removed; but as ſoon as the head is born, the portion ſurrounding the neck may be cut aſunder, and thus the reſiſtance ceaſes.

Preternatural Parturition.

This is the preſentation of any part except the vertex.

Cauſes.

1 Quantity of the liquor amnii,
2 Agitation on the part of the mother,
3 Motion of the child.

It is diſcovered by,

1 Duration,
2 Inſpection,
3 Touching.

Remedy.

Remedy.

Turning or rectifying the faulty poſition, ſo as to render delivery poſſible, or leſs difficult, is requiſite.

It is

1 Complete,
2 Partial.

Complete Turning.

This is inverting more or leſs the child's ſituation, ſo as to cauſe the foot or feet preſent; or, in other words, it is rendering the preſentation footling *.

Attitude.

The direction of the axis of the pelvis and uterus, with both which the hand and arm of the operator ought to coincide, points out the proper attitude of the mother.

It may be various:

1 Supine,
2 Lateral,
3 Kneeling and ſtooping,
4 Standing and ſtooping.

The ſituation of the operator is regulated by that of the mother.

* PLENCK Elem. Art. Obſt. Verſio fœtus artificioſa manipulatio, qua ſitus fœtus, pro partu ineptus, ope manus obſtetricatoris mutatur, ut fœtus, pedibus ex utero cædo extrahatur. P. 159.

Manner.

Manner.

The operator forms his hand, done over with fine oil, &c. into a conical ſhape; and in the moſt delicate manner introduces it into the uterus, and lays hold of one foot, or both.

The delivery is completed by drawing gently, in a juſt direction, imitating the pains and co-operating with them as much as may be; at the ſame time accommodating artfully the ſituation of the child to the form of the pelvis, in its different points; and allowing the head to take the upward or circular motion through the os externum.

The principal impediments are,

1 *Non-dilatation.*

Sufficient opening is procured by;

1 The hand,
2 Emollients.

2 *Inclavation.*

This is prevented by performing the operation before all the liquor amnii has run off.

It is ſurmounted by cautious and perſevering preſſure in a juſt direction.

3 *Catching of the Feet.*

The child's feet are moſt likely to be placed laterally as to the uterus, therefore are moſt conveniently ſought for and intercepted by the

the hand that correſponds to the ſide of the mother, to which they are turned; a circumſtance readily diſcovered by touching.

One may be ſecured by a nooſe or lac, while the other is ſought for.

Delivering, although leſs properly, may be completed by drawing by one foot and leg, till the breech be within reach.

4 *Delivering.*

The footling delivery is always dangerous, and too often fatal to the child.

Succeſs depends on the head taking the proper turns to enter and paſs through the pelvis.

The face ought to be towards the mother's ſide when it enters the brim, and towards the cavity of the os ſacrum when it is in the pelvis, and approaching to its bottom.

The chin riſes from the diſtended perinæum forwards, like the vertex in ordinary parturition.

The face turned forwards, as to the mother, is apt to be ſtopped by the chin catching on the oſſa pubis.

This circumſtance is obviated by turning the child in the pelvis about its axis.

The rigid and undilated condition of the os externum, often creates much and dangerous reſiſtance.

The umbilical chord being compreſſed, ſoon produces fatal conſequences; the extraction

traction is therefore to be completed with as much expedition as is conſiſtent with ſafety, by

1 The hand,
2 The lever, eſpecially the living one, which completely ſuperſedes fillets, nets, &c.
3 The forceps; the living one is preferable.

The reſiſtance for the moſt part ariſes from the head,

1 Not entering the pelvis,
2 Not turning at its bottom,
3 Oppoſed by the os externum.

It may be diminiſhed by extracting the arms, one of which is ſometimes wedged betwixt the head and oſſa pubis.

Dexterity is more availing than force.

The drawing ought to be gentle at firſt, and increaſed according to circumſtances, and always in a juſt direction, with full attention to the the relative poſture, and figure of the head and pelvis §.

Unfortunately, theſe attempts often kill the child, and ſometimes ſeparate the trunk from the head.

The head remaining, whether in the uterus or vagina, may indicate excerebration.

* BURTON, AMYAND, &c. have exerted their genius in ſuch inventions.

§ The living lever, properly employed, effectually relieves the neck from the ſtrain, and expedites the delivery.

The

The flexible crotchet may be of excellent uſe.

The head may be fixed during the perforating, by

1 The forceps, common or ſcrewed,
2 The lever,
3 The crotchet.

Partial Turning.

This is altering the ſituation of the preſenting part, or ſubſtituting another, without moving the trunk of the child in any great degree.

This operation, much leſs dangerous, and often not leſs practicable than full turning, ought therefore juſtly to ſuperſede it as often as may be.

It was the favourite practice of the ancients, and is perhaps too much poſtponed to the full turning and footling method of the moderns.

Varieties.

The varieties are as the preſentations.

The principal ones are,

1 The face,
2 The ſhoulder,
3 The hand,
4 The breech,
5 The foot,
6 The chord,
7 The placenta.

The form of the child, and that of the uterine cavity, neceſſarily prevent the back and belly from preſenting.

A contrary opinion has been advanced *.

---

1 *Preſentation of the Face.*

This is commonly called Face-caſe.

It is the ſlighteſt deviation from the ordinary parturition.

Remedy.

This variety admits of ſpontaneous delivery, not however with impunity to the child.

Partial turning, that the vertex may be preſented, is clearly indicated.

The living lever is the fitteſt inſtrument, becauſe it it manageable in a ſmall ſpace.

While the lever acts on the occiput, vertex, or front, the fingers ſupport the chin, ſo as to make it the center of motion to the head §.

The preſentation being thus rectified, farther inſtrumentary operation in general is unneceſſary.

---

2 *Preſentation of the Shoulder.*

The head is turned to one of the ſides of the pelvis.

* HEISTER. Inſtitut. Chirurg.
SMELLIE. Table xxviii.
§ See plate ix.

The

The neck and ſometimes the head can be touched.

In general, it may be affirmed, that this preſentation does not permit unaſſiſted parturition. Indeed it has lately been obſerved, that a ſpontaneous evolution ſometimes happens, ſo that the breech is ſubſtituted, and delivery completed.

This is ſcarcely to be expected, for the moſt obvious reaſons; and not to be wiſhed: becauſe the children thus expelled have all been dead *.

Remedy.

This is turning.

The partial ſort is to be firſt attempted, by

1 The hand,
2 The living lever,
3 The impellens §.

* Dr. DENMAN firſt obſerved this circumſtance, which he calls a ſpontaneous evolution. Inſtances of the ſame kind have been marked by Dr. COGAN of London, Dr. HAIR of Liſbon, and Mr. HEY ſurgeon of Leeds. See London Medical Journal.

An inſtance of a ſimilar nature occurred laſt ſummer in the Edinburgh Lying-in Hoſpital. At leaſt a child preſenting the arm was delivered without aſſiſtance. The numerous young gentlemen, pupils of the hoſpital, who were preſent, all agreed in this circumſtance.

When called, I was engaged with another obſtetrical caſe; half an hour therefore elapſed before I arrived at the hoſpital, and the delivery was over, ſo that I had not an opportunity to ſee the mode of the evolution.

§ A ſmall addition to the handle of the lever converts it into an IMPELLENS, by which the preſenting part may be puſhed effectually and ſafely upwards. See plate xi.

This is a grand and manly attempt, notwithſtanding the oppoſite ſentiments of ſome *; becauſe, if ſucceſsful, the riſks of complete turning are avoided; and although it fail, it is not, when properly conducted, in any degree injurious.

When partial turning is found to be impracticable, the complete kind becomes indiſpenſible, at leaſt if we wiſh to ſave the child.

---

3 *Preſentation of the Hand.*

This is nearly the ſame with the preſentation of the ſhoulder.

Remedy.

When practicable the hand may be returned.

When the pelvis is large, delivery may take place without its being returned.

Although the arm be ſwollen and livid, we are not to preſume the child to be dead, and cut it off.

---

4 *Preſentation of the Breech.*

This may be miſtaken for that of the head.

* Pare Opera Chirurgica, lib. xxiii. cap. 33.
Smellie's Midwifery, vol. i. p. 340, &c.
Plenck's Elem. Art. Obſt. p. 152.

Remedy.

Remedy.

Impaction is often very great, and therefore the tranſmiſſion may require to be promoted by

1 The fingers,
2 The living lever,
3 The living forceps *,
4 The flexible blunt hook,
5 The common blunt hook.

The laſt inſtrument is dangerous, becauſe it always bruiſes the ſoft parts, and ſometimes diſlocates or fractures the thigh bones; its uſe ought therefore to be reſtricted to extraction of the dead child.

The feet and breech, on account of their being deliverable by the pains, have been reckoned ordinary and natural preſentations;

---

5 *Preſentation of the Foot.*

This is carefully to be diſtinguiſhed from that of the hand.

This caſe is capable of ſpontaneous delivery.

When neceſſary, drawing may be employed.

* I find the lever and forceps to be capable of a firm application to the haunch of the child, and when duly managed, much leſs deſtructive than the blunt hook.

6 *Preſentation*

6 *Preſentation of the Chord.*

When the chord falls down before the other parts, eſpecially the head, it is ſubjected to preſſure, by which the circulation of the blood is interrupted, and danger produced.

Treatment.

It may be returned beyond the head, and conſequently freed from compreſſion, by

1 The fingers,
2 The reductor *,
3 The hand.

This event does not ſeem to require the very doubtful practice of full turning, which has been generally recommended §.

Suppoſe the hand introduced as for full turning, may it not replace the chord, and thus turning be avoided?

---

7 *Preſentation of the Placenta.*

This (placenta prævia) takes place when the placenta happens to adhere to the circumference of the os internum.

* A grooved piece of ivory tied on the edge of the point of the lever, to retain and carry the chord, returns it with certainty.

This inſtrument I call a REDUCTOR. See plate xi.

§ Dr. SMELLIE recommends this in the moſt explicit terms, in his Midwifery, vol. i. p. 351.

Symptoms.

Symptoms.

1 Softneſs,
2 Hæmorrhage.

Remedy.

Delivery is requiſite as ſoon as may be, to check the hæmorrhage.

The hand is forced beyond or through the placenta, and the extraction made according to the ſituation of the child, by

1 The lever,
2 Forceps,
3 Turning.

Combination.

The lingering and preternatural births are ſometimes conjoined.

Practice.

After full inveſtigation, the caſe is analyzed, and the faulty circumſtances ſucceſſively corrected by the ſpecified methods.

Plural

Plural Birth *.

A plural pregnancy ſomewhat ſhews itſelf before parturition, by

1 Unuſual ſize of the abdomen;
2 Numerous motions, and in various points at once;
3 Anticipation of the common term of delivery.

Symptoms.

It may be diſtinguiſhed before completion by

1 Smallneſs of the child preſented or born,
2 Volume of the uterus,
3 Touching.

Practice.

This birth does not occaſion much embarraſſment.

Each child is delivered as if ſolitary.

Frequently one preſentation is preternatural.

No attempt is to be made to extract any of the placentas till all the children are born, becauſe they ſometimes cohere.

If two ſets of membranes burſt, and the

* Synonymes---Partus gemellorum, &c.

children

children be præternaturally ſituated, the ſame limb of each may be preſented at once *.

This is eaſily detected by careful touching.

Superfœtate Birth.

This (partus ſuperfœtatus) is really a plural one; the chief ſpeciality is the quantity of interval between the births.

Dead Birth.

This (partus fœtus mortui) merits remark.

* Rebecca conceived, and the children ſtruggled within her. And the LORD ſaid unto her, Two nations are in thy womb, and two manner of people ſhall be ſeparated from thy bowels. And when her days to be delivered were fulfilled, behold there were twins in her womb; and the firſt came out red all over like an hairy garment, and they called his name Eſau; and after that came his brother out, and his hand took hold on Eſau's heel, and his name was called Jacob. Geneſis, chap. xxv. ver, 22.

And it came to paſs in the time of her (Tamar) travail, that, behold twins were in her womb. And it came to paſs, when ſhe travailed, that the one put out his hand; and the midwife took and bound upon his hand a ſcarlet thread, ſaying, This came out firſt. And it came to paſs, as he drew back his hand, that, behold his brother came out; and ſhe ſaid, How haſt thou broken forth; this breach be upon thee. And afterwards came out his brother, that had the ſcarlet thread upon his hand. Chap. xxxviii. ver. 27.

Symptoms.

The death of the child before delivery may be known by,

1 Stillneſs,
2 Coldneſs,
3 Senſation of unuſual weight,
4 Sickneſs,
5 Fœtor,
6 Non-pulſation,
7 Softneſs,
8 Lividity,
9 Excoriation.

Treatment.

It has been obſerved, that the dead child is not more difficult to be born than the living one; on the contrary, in ſome inſtances, it is more eaſily delivered: therefore no ſpeciality of practice is indicated.

Forced Birth.

This is anticipated delivery.

Indications.

1 Exceſſive uterine hæmorrhage,
2 Convulſive fits of dangerous ſtrength and duration.

Manner.

Manner.

This is varied by,

Dilatation;

When needful this is increaſed by a gradual preſſure and introduction of the hand in a conical form, for rigidity;

Preſentation;

When the dilatation is ſufficient, and the vertex is preſented, the delivery may be expeditiouſly effected by,

1 The lever,
2 The forceps.

When this cannot be performed, recourſe muſt be had to,

3 Full turning.

Delivery of the Placenta.

Indications.

Immediate extraction is indicated by,

1 Hæmorrhage,
2 Detention (deuteria).

The cauſes of detention may be,

1 Contraction,
2 Concretion,
3 Debility.

Manner.

This extraction is attempted by gently drawing the umbilical chord in a good direction.

Raſhneſs has often produced an inverſion of the uterus (inverſio uteri).

When the chord is broken, the hand is introduced as for turning:

The rules are,

1 Diſtinguiſh accurately.
2 Diſengage gently,
3 Catch properly,
4 Extract cautiouſly.

The puerperal pathology extends its views to thoſe diſeaſes which occur during,

1 Non-pregnancy,
2 Pregnancy,
3 Parturition,
4 Poſt-parturition,
5 Infancy.

A full conſideration of theſe, ſo as to enable us to diſtinguiſh, prevent, relieve, and remove them, is of the greateſt importance.

Diſeaſes during Non-Pregnancy.

1 Local,
Deformed Nymphæ,
hymen,
Deformed

Deformed vagina,
Hernia,
Prolapſus uteri,
Polypus,
Cancer,
Dropſy,
Tympany;

2 General,
Hyſteria,
Furor uterinus,
Irregular menſtruation,
Fluor albus,
Chloroſis.

Deformed Nymphæ.

The nymphæ are ſometimes ſo prominent and pendulous as to give inconvenience.

Cure.

Exciſion.

Deformed Hymen.

The hymen may be altogether impervious (hymen imperforatus), or ſo much contracted as to be productive of conſiderable inconvenience when puberty approaches.

Cure.

Cure.

According to circumſtances are neceſſary,

1 The knife.
2 Bougie,
3 Sponge-tent.

Deformed Vagina.

The vagina is ſometimes natively contracted, at other times more or leſs narrowed by concretion.

It has ſometimes opened into the rectum, and above the oſſa pubis *.

Cure.

The circumſtances regulate the uſe of

1 The knife,
2 Bougie,
3 Sponge-tent.

Hernia.

Hernia, or rupture, denotes a diſplacement of the viſcera covered by the integuments,

* I ſaw a caſe of entire concretion after child-bed. I have been informed of one in which it was totaliy wanting.

The

The abdominal organs, becauſe moveable, moſt frequently induce it.

The female is liable to,

1 Exomphalos,
2 Bubonocele,
3 Merocele,
4 Hyſterocele.

The third is ſeldom met with in the male; the fourth is peculiar to the female.

Cure.

This may be,

1 Radical,
2 Palliative.

Both previouſly require,

1 Reduction,
2 Retention,

The radical method procures an impoſſibility of relapſe *.

The palliative one, or reſiſtance and protection by bandage of a proper form, is generally adopted.

It has been already remarked, that the gravid uterus, forming hyſterocele, rendered hyſterotomy neceſſary §.

* Syſtematic Elements of Surgery.
§ Page 81

Prolapſus

Prolapſus Uteri.

Prolapſus is a naked diſplacement of any organ.

The female is peculiarly liable to that of the uterus and vagina.

Theſe often occur in

1 Non-pregnancy,
2 Gravidity.

The following remarks refer to the firſt.

It ſeldom occurs before child-bearing, and generally in advanced life.

It is readily diſcovered by,

1 Obſtruction,
2 Painful ſenſation,
3 Touching,
4 Inſpection.

Cauſes.

1 Relaxation of the ligamenta lata, &c.
2 Straining during travail, &c.

Prognoſtic.

It is not dangerous, although always abundantly incommoding.

The younger the ſubject, and the more recent the diſeaſe, the removal is leſs difficult.

* Synonymes---Prolapſus, procidentia, or downfalling.

Cure.

Cure.

Like that of hernia, this requires,

1 Reduction.
2 Retention.

Reduction.

This is eaſily effected, by gentle preſſure in the reclined poſture.

Retention.

Supporting the replaced uterus is not a little difficult.

It is attempted by

1 Peſſary,
2 Bandage.

Peſſary.

Of all the varieties of this inſtrument, that is preferable which poſſeſſes the following qualities:

1 Smoothneſs,
2 Lightneſs,
3 Compreſſibility.

I have invented the air-peſſary, which has theſe characters in a greater degree than any other I know of *.

Bandage.

* The air-peſſary is formed of a ſmall bladder or bag, ſoft and air-tight, with a valve at the orifice. It is intro-

 troduced

Bandage.

This cannot afford full retention; its effect, however, is not a little comfortable and beneficial.

The T bandage is fitteſt.

A piece of folded linen cloth, covered with fine oil or ſweet butter, applied over the os externum and ſupported by this bandage, may, at leaſt, be employed when peſſaries of proper conſtruction cannot procured.

While retention is purſued by theſe methods, the laxity requires remedies:

1 General,
- Diet,
- Exerciſe,
- Tonics--cold-bath, ſteel, &c.

2 Topical,
- Oak, Peruvian, } bark,
- Allum,
- Cold.

Polypus.

This is a fleſh-like tumour, generally ſomewhat round.

duced and then duly inflated by the patient, by a long flexible tube, which is immediately retired.

This inſtrument, while it is exceedingly light, fully occupies the vagina, and ſupports perfectly the uterus. When it is wiſhed to retire it, the valve is forced, and immediately it collapſes. See plate xi.

It

It is formed in,

1 The noſe,
2 The ear,
3 The throat,
4 The vagina.

Polypus in the vagina is often attached by a ſtalk to the os internum.

It ſometimes acquires the ſize of a child's head.

Diagnoſtic.

This is gathered from the

1 Pain,
2 Hæmorrhage,
3 Suppreſſion of the urine and fœces,
4 Touching,
5 Inſpection.

A careful diſcrimination betwixt it and prolapſus uteri is requiſite; a miſtake may be fatal.

Prognoſtic.

When inveterate, it is very ſuſceptible of cancer.

Cure.

Extirpation, which ought to be early, is practicable by,

1 Exciſion,
2 Ligature.

The former is effected by the knife or ſciſſars of proper ſhape *.

The latter, by the inſtruments of LEVERET, HUNTER, and GOERZ §.

If it can be drawn ſufficiently down, it may be tied without inſtruments.

Cancer.

This is an ulcer of the moſt malignant nature.

Prediſpoſition.

It is difficult to point this out in the conſtitution. In the part it is peculiar in duration, named ſchirrus.

This is tumour with a loſs of vaſcular ſtructure, diminiſhing the circulation of the fluids.

The characters of ſchirrus are,

1 Peculiar hardneſs,
2 Glandular ſituation,
3 Slow formation,
4 Indolence.

The tranſition to cancer is always marked by inflammation; accordingly, inflamed ſchirrus has been named occult cancer; and when this proceeds to effuſion and rupture, it is open cancer.

* Elements of Phyſic and Surgery, vol. ii.
§ See Inaugural Diſſertation de Polypo.

Symptoms.

Symptoms.

1 Acute pain,
2 Ragged margin,
3 Fœtor,
4 Eroſion,
5 Acrimony.

The acrid quality of the matter does not reſult from any diverſity in the inflammation, conſidered as a ſtate or proceſs, but from the previous condition of the affected parts.

Prognoſtic.

Cancer, even in the ſlighteſt degree, is always dangerous.

Cure.

This is,

1 Radical,
2 Palliative.

The radical cure is amputation.
It is abſolutely neceſſary that it be.

1 Timely,
2 Complete.

It may be effected by,

1 Cauſtic--arſenic, &c.
2 The knife,
3 Ligature.

Internal

Internal remedies have been propoſed, but found abortive,

1 Cicuta,
2 Arſenic.

Palliation is acquired by remedies

1 General:

Mild and nouriſhing diet;
Tonics---Peruvian bark, wine, &c.;
Opium:

2 Topical:

Abſorbents---fine lint, ſponge, &c.;
Demulcents—oil, milk, mucilage, &c.;
Opium---cataplaſma anodyn. ol. anodyn. &c.

Leſt the ulceration be venereal, mercury may always be tried.

Hectic fever keeps pace with the ulcer, and finally kills the patient.

Cancer frequently attacks,

1 The breaſt,
2 The uterus.

Cancer of the Breaſt.

This moſt commonly occurs after the child-bearing period. Indeed it is not confined to the puerperal female.

Cure.

Extirpation, and if poſſible, during the ſchirrous ſtate.

Cancer of the Uterus.

This oftenest attacks the aged.

Symptoms.

1 Pain,
2 Acrid and fœtid diſcharge,
3 Volume,
4 Induration.

Cure.

Amputation of the uterus being ſeemingly impracticable, the palliative cure alone remains.

Dropſy.

This is a collection of a ſerous or water-like fluid in any cavity.

The varieties more immediately connected with our ſubject, are ſeated in the

1 Abdomen,
2 Ovarium,
3 Uterus.

Dropſy of the Abdomen.

This (aſcites) is formed in the cavity of the peritonæum.

Diagnoſtic.

This is taken from

1 Progreſs,
2 Uniformity,
3 Fluctuation.

Cauſes.

1 Laxity
2 Obſtruction
3 Rupture
4 Schirroſity
} of the abſorbents.

It is carefullly to be diſtinguiſhed from pregnancy, with which it is ſometimes preſent.

Prognoſtic.

The fate of the aſcitical patient is often dangerous, always doubtful: the younger the ſequel is leſs to be dreaded.

Cure.

Aſcites is removed by

1 Abſorption,
2 Tapping *.

* Syſtematic Elements of Surgery.

The

The firſt is frequently unattainable, and not to be too long proſecuted by

1 Cathartics--Crem. Tart, &c.
2 Diuretics--neutral ſalts,
3 Stimulants--friction, exerciſe, &c. *

Dropſy of the Ovarium.

This is probably at firſt confined to one of the cells or veſicles §.

Symptoms.

1 Lateral ſituation,
2 Aſcenſion,
3 Altered ſituation of the uterus.

The enlargement is ſometimes very great ||.

* A woman, aged 40, in the pariſh of Kirklington, near Carliſle, laboured under aſcites for three years. The ſize of her belly was very great, while her body was much emaciated.

At laſt her navel, which was much protruded, burſt, and the fluid was ſuddenly diſcharged.

The wound continued open, and afforded an oozing, for three or four months. She gradually recovered her health, and has had no relapſe.

§ Syſtematic Elements of Surgery, p. 16.

|| Mr. MARTINEAUX of Norwich communicated the following caſe to the Royal Society.

Dropſy of the ovarium began ſoon after a miſcarriage, in a woman twenty-ſeven years of age. She was tapped in the year 1757, and the operation was repeated three or four times every year till 1783, when ſhe died; in all eighty times. The quantity of fluid amounted to 6631 pints.

The left ovarium was changed into an immenſe pouch.

SAUVAGES Noſolog. Method.

Cure.

Cure.

This is attained by the means recommended againſt aſcites.

May the tapping be practiſed from the vagina?

Dropſy of the Uterus.

This is rarely met with.

Diagnoſtic.

Uterine dropſy is diſtinguiſhed by

1 Situation,
2 Impaired function of the uterus,
3 Touching.

It is carefully to be diſcriminated from pregnancy.

Cure.

The fluid is to be diſcharged by the os internum.

Tympanites.

Tympany is a ſwelling or diſtenſion by air.

Situation.

It may be in the

* See London Communications.

1 Inteſtine,

1 Inteſtine,
2 Peritonæum,
3 Uterus.

The exiſtence of the laſt two is doubtful.

Hyſteria *.

This is a convulſive ſtate often reſembling epilepſy.

It is

1 Acute;
2 Chronic;

Acute Hyſteria.

This is ſtrong, and ſeemingly epileptic convulſion, ſudden in attack, and long in duration.

The convulſion is ſometimes clonic, at other times tonic; by the laſt the uſe of the articulations is ſuſpended, or the body becomes inflexible.

It chiefly attacks the young and robuſt.

It ſometimes appears during parturition §.

Symptoms.

1 Convulſion of the extremities and trunk; producing ſtrong wreathings and agitations;

* Synonymes---Hyſteria, hyſterical affection, or hyſterics.

§ See Convulſion.

2 Inconſciouſneſs,
3 Retraction of the umbilicus,
4 Stricture of the anus,
5 Limpid urine.

A concurrence of theſe is an hyſteric paroxyſm.

It happens moſt commonly in the menſtrual periods, and in barren women *.

Cauſes.

The prediſponent are

1 Youth;
2 Vigour:

The occaſional or exciting are

1 Irritation or ſtimulus;
2 Strong paſſion or emotion of mind:

The proximate one is a condition of the nerves giving morbid or high ſenſibility.

This has been thought to take place peculiarly in the genital ſyſtem; hence the name of the diſeaſe.

Prognoſtic.

It is ſeldom deadly.

* Dr. CULLEN's firſt Lines, § MDXVI.

Cure.

Cure *.

Removal of Cauſes.

The paſſions are to be calmed, and every ſoothing ſuggeſtion offered.

All irritations, as far as may be, are to be obviated.

Alleviation of Symptoms.

This requires remedies:

I. General;

1 Bleeding,
2 Purging,
3 Tepid bathing,
4 Opium.

II. Local;

1 Tepid Bath,
2 Opium.

Theſe, duly adminiſtered, at once ſubvert the prediſponent cauſes, and alleviate the ſymptoms.

* It may be porper to mention, that the treatment of every diſeaſe neceſſarily proceeds on two indications,

1 Removal of cauſes,
2 Alleviation of Symptoms.

Theſe will be found to comprehend every rational application or remedy.

Chronic

Chronic Hyſteria.

This hyſteria is fainter, but much more protracted than the acute ſort.

It occurs in the delicate and aſthænic habit, particularly when old.

Symptoms.

1 Borborygmus, or murmuring convulſion of the inteſtines;

2 Globus hyſtericus, or convulſion of the gullet;

3 Flatulence, belching, &c.;

4 Clavus hyſtericus, or acute pain of the head;

5 Palpitation;

6 Yawning;

7 Suſceptibility of various and oppoſite paſſions; hence laughing, crying, and ſighing in ſudden ſucceſſion;

8 Coſtiveneſs.

Cure.

Removal of Cauſes *.

This is highly conſequential.

It furniſhes occaſion to much attentive enquiry.

Alleviation of Symptoms.

This is chiefly promoted by

* See page 125.

1 Dietetics

1 Dietetics of the moſt nouriſhing quality;
2 Stimulants of the diffuſible, volatile, or fœtid kind, commonly called antihyſterics; as

Ardent ſpirit,
Æther,
Spiritus volatilis aromaticus,
Tinct. fœtida,
Muſk, &c.

3 Tonics;
Wine,
Iron preparations, ſteel carraway, &c.
Steel waters,
Cold bath,
Paſſive exerciſe,
Peruvian bark,
Bitter ſpirituous tinctures.

4 Laxatives;
Aloetics,
Soluble tartar,
Magneſia, &c.

5 Opiates.

The cure of ſymptomatic hyſteria requires attention to the original diſeaſe.

Furor Uterinus *.

This is an itching ſenſation about the os externum.

* Synonymes----Nymphomania.

The

The glands of the clitoris and urethra are perhaps the ſeat of the affection.

Symptoms.

1 Laſciviouſneſs,
2 Micturition,
3 Convulſion.

Proximate Cauſe.

This is an alteration, perhaps ſomewhat of the inflammatory kind, of the glands and their fluids.

Cure.

Removal of Cauſes §.

Every ſuſpected exciting cauſe is attentively to be removed.

Relief of Symptoms.

The remedies are,

1 General;
Bleeding,
Tepid bath,
Opium.

2 Topical;
Tepid bath—poultice, &c.
Emollients—milk, ſweet cream, oil, &c.
Opium—ol. anodynum, &c. *

§ See page 125.
* Sacch. Saturni has been propoſed as a local application.

Irregular

Irregular Menſtruation.

A comprehenſive view of this important diſeaſe may be taken under the heads,

1 Non-appearance,
2 Suppreſſion,
3 Overflowing.

Non-appearance.

This (emanſio menſium) is not frequent.

Cauſes.

1 Malformation of the menſtrual veſſels,
2 Obſtruction of the os internum or externum,
3 Diſeaſe producing inanition.

Cure.

The diſeaſe, from the firſt cauſe, is, in its nature, incurable; but as this is difficultly detected, a prudent application of remedies is admiſſible.

Depending on the ſecond, it may be obviated by ſurgery.

Reſulting from the third, the removal of the primary affection is the cure.

Suppreſſion.

This (amenorrhœa) may be,

1 Partial,
2 Total.

Both may be conſidered under the term ſcantineſs or deficiency.

Symptoms.

1 Laſſitude and debility,
2 Vitiated appetite,
3 Paleneſs, or chlorotic diſcolouring,
4 Swelling of the feet and legs,
5 Pains of the back and loins,
6 Hæmorrhage from the noſe, lungs, &c.

Cauſes.

This diſeaſe is for the moſt part ſymptomatic, or dependent on another; conſequently the pre-exiſting one is the occaſional cauſe.

This circumſtance is exceedingly conſequential, and merits the cloſeſt attention.

Suppreſſion, proceeding from pregnancy, is obviouſly not a diſeaſe, but may be hurtfully miſtaken for one.

Prognoſtic.

The fate of the patient depends on the nature of the primary diſeaſe.

Cure.

Cure.

The re-eſtabliſhment of the menſes has been attempted by ſubſtances from their ſuppoſed effects, called Emmenagogues.

It may juſtly be queſtioned, if materia medica contains any articles ſtrictly deſerving this appellation, ſuch as,

1 Sabina,
2 Rubia tinctorum,
3 Melampodium,
4 Aloe,
5 Cantharides, &c.

Cure.

Removal of Cauſes *.

This is of the utmoſt importance, becauſe the affection in queſtion is almoſt always ſymptomatic.

Relief of Symptoms.

As far as the diſeaſe is idiophatic, and connected with inanition, the remedies are,

1 General;

Dietetics,
Wine,

* See page 125.

Air,
Paſſive exerciſe—riding, friction, &c.
Tonics,
Peruvian bark,
Preparations of ſteel,
Cold bath.

2 Local;

Stimulants,
Heat through the medium of water.
Electricity,
Marriage.
Compreſſing the femoral arteries, to give impetus to the blood in the uterine ones.

When the ſuppreſſion has been ſymptomatic, health and the menſes return together.

In no caſe ought the practitioner to be too buſy; he may do michief.

The healing power is productive of changes which the undiſcerning are apt to aſcribe to other cauſes.

Over-flowing.

Over-flowing (menorrhagia), is an exceſſive diſcharge within a given time.

This happens when the uſual quantities are diſcharged after too ſhort intervals; or when too

too great quantities are effuſed at the ſtated terms.

A conſiderable latitude is conſiſtent with health.

Cauſes.

1 Plethora,
2 Stimulants,
3 Agitation,
4 Exertion,
5 Atony.

When this hæmorrhage is dependent on the plethoric and vigorous ſtate, it is called active; in oppoſite circumſtances, it is paſſive.

It is oftenеſt of the former kind; but ſoon paſſes to the latter.

Prognoſtic.

Menorrhagia, unconnected with local diſeaſe, is ſeldom dangerous.

Cure.

The application of remedies muſt be made according to the nature of the hæmorrhage.

Cure of Active Menorrhagia.

Removal of Cauſes *.

This is of the higheſt importance, and merits the ſtricteſt attention.

* See page 125.

Relief

Relief of Symptoms.

This is effected by remedies,

1 General;

Blood-letting,
Abſtinence,
Reſt,
Opium.

2 Topical;

Tepid bath,
Opium.

Cure of Paſſive Menorrhagia.

Relief of Symptoms.

This may be gained by remedies,

1 General;

Dietetics,
Stimulants—wine, &c.
Tonics.
Peruvian bark,
Vitriolic acid,
Steel preparations,
Cold bath,
Paſſive exerciſe.

2 Local;

Cold bath,
Stimulants.

Fluor

Fluor Albus *.

This a flux of whiteiſh matter from the vagina §.

Source

It is thought to proceed from the menſtrual veſſels, and to be connected with the paſſive menorrhagia ‖.

May it not be a morbid ſecretion, or glandular effuſion?

Diagnoſtic.

This diſeaſe is very common.

It may be miſtaken for gonorrhœa virulenta, as the matter ſometimes reſembles pus.

Inflammation, pain, and ardor urinæ, attend gonorrhœa.

Careful touching aſſiſts the diagnoſtic.

Cauſes.

1 Laxity,
2 Irritation.

Cure.

Removal of Cauſes **.

This requires great attention.

* Synonyme---Leucorrhœa.
§ Elements of Phyſic and Surgery,
‖ Dr. CULLEN's Firſt Lines, § DCCCCLXXXVIII.
** See page 125.

Relief

Relief of Symptoms.

This is procured by remedies,

1 General;

Dietetics,
Stimulants,
Tonics—Peruvian bark, &c.

2 Topical;

Aſtringents,
Tincture of Peruvian bark,
——— oak bark,
——— red roſe leaves,
——— green tea,
Red wine,
Lime water,
Cold water.

Theſe laſt are injected occaſionally into the vagina, while the ſituation of the patient is favourable to retain them.

An injecting apparatus that gives as little diſturbance as poſſible is to be employed *.

Chloroſis.

This (green-ſickneſs) is an aſthænic ſtate, incidental to the younger ſubject, and much connected with irregular menſtruation.

* Dr. SWEDIAUR very obligingly favoured me with the model of a good one.

Symptoms.

Symptoms.

1 Non-appearance or ſcantineſs of the menſes.
2 Sluggiſhneſs, laſſitude, and debility,
3 Dyſpepſia,
4 Vitiated appetite,
5 Paleneſs verging to the yellow.
6 Oedema of the feet, &c.
7 Head-ach,
8 Pains of the back and loins,
9 Palpitation,
10 Syncope.

Cure.

This is effected by the remedies of paſſive menorrhagia.

Sterility.

Cauſes.

Barrenneſs may ariſe from,

1 Diſeaſe,
2 Malformation of the organs,
3 Obeſity.

Cure.

This is only to be obtained by the moſt attentive removal of cauſes, which is often impoſſible.

II. *Diſeaſes during Pregnancy.*

1 Indigeſtion,
2 Longing,
3 Heart-burn,
4 Coſtiveneſs,
5 Hæmorrhoids,
6 Varices,
7 Stranguary,
8 Retroverſion,
9 Hyſterocele,
10 Cramp,
11 Aſthma,
12 Hepatitis,
13 Jaundice,
14 Lues venera,
15 Dropſy,
16 Abortion,
17 Falſe labour,

Indigeſtion.

This (dyſpepſia) ſeldom fails to occur early.

Symptoms.

1 Loſs of appetite,
2 Sickneſs (nauſea),
3 Vomiting,
4 Flatulence,
5 Leanneſs.

Cauſes.

Cauſes.

1 Diſtention of the uterus, which diſturbs the digeſtive organs, as well by ſympathy as preſſure;
2 Retention of the menſes.

Cure.

Removal of Cauſes *.

Occaſional ones cannot be avoided.

Relief of Symptoms.

Little alleviation can reaſonably be expected while the cauſes continue to act; ſome, however, may be obtained by,

1 The moſt digeſtible food taken frequently, but in ſmall quantity,
2 Free air,
3 Gentle and paſſive exerciſe,
4 Cheerful diverſions.

Longing.

This (pica) is a wiſhfulneſs for uncommon foods, and is for the moſt part tranſient.

* See page 125.

Cauſe.

The ſympathetic affection of the digeſtive organs, eſpecially the ſtomach.

Cure.

The object longed for may generally be indulged in.

Heart-burn.

This (cardialgia) is a ſenſe of heat and burning about the ſtomach, often producing ſickneſs and vomiting.

Cauſe.

A ſympathetic affection of the ſtomach, chiefly conſiſting in,

1 Irregular and weakened action,
2 Morbid ſenſibility.

Effects.

1 Pain,
2 Acidity,
3 Indigeſtion.

Cure.

Cure.

Removal of Cauſes *.

This obviouſly cannot be effected.

Relief of Symptoms.

Some alleviation is obtained by,

1 The moſt nutritious diet,
2 Opiates when the pain is ſevere,
3 Abſorbents,---magneſia, chalk, &c.

Coſtiveneſs.

This (obſtipatio) is an undue retention of alvine fæces.

It is very common, and for the moſt part aggravated during the latter months.

Cauſes.

1 Preſſure,
2 Diſturbed and weakened action of the inteſtines.

Cure.

Removal of Cauſes *.

Theſe are fixed.

* See page 125.

Relief

Relief of Symptoms.

Alleviation may be had from;

1 Laxative diet—ripe fruits, &c.
2 Moderate exerciſe,
3 Mildeſt purgatives;
Aloetics,
Neutral ſalts,
Magneſia.

It is requiſite to repeat theſe occaſionally.

Hæmorrhoids.

The piles (hæmorrhoids) is a diſcharge of blood from veſſels near the anus.

When this diſcharge happens from veſſels within the anus, the hæmorrhoids are ſaid to be internal.

When the veſſels are turgid and about to burſt, they are called blind piles, to diſtinguiſh this ſtage from the next, which gives open or bleeding piles.

The ſtretching of the veſſels, during the blind ſtage, produces more or leſs inflammation and pain, which are highly aggravated at ſtool, particularly if coſtiveneſs be preſent.

This diſeaſe appears moſt commonly in advanced pregnancy.

Cauſes.

Cauſes.

1 Magnitude and preſſure of the uterus, interrupting the return of the blood in the hæmorrhoidal veins;

2 Coſtiveneſs,

3 Parturition.

Cure.

Removal of Cauſes *.

The inveſtigation and removal of exciting cauſes are to be attended to as much as poſſible.

Relief of Symptoms.

This requires,

1 Leeching, eſpecially during the blind ſtage;

2 Gentle cathartics, occaſionally adminiſtered by the mouth, or in the form of clyſter §;

3 Tepid bath, eſpecially poultice;

4 Emollients—oil, cream, &c.

5 Opiates—anodyne oil or linament;

6 Reſt.

The effect of theſe remedies is much promoted by the lying poſture, when the ſwelling and pain are conſiderable.

* See page 125.

§ I have contrived a convenient apparatus, by which the patient can adminiſter the injection.

The

The diſeaſe thus appears in a great meaſure to be local, and not nearly ſo conſequential as ſome have ſuppoſed.

Varix.

This is a ſwollen or diſtended vein.

The varicoſe ſtate of the veins of the legs, frequently occurs towards the end of pregnancy, and is neceſſarily attended with conſiderable pain.

Cauſe.

The gravid uterus, affecting the motion of the returning blood.

Cure.

Removal of Cauſes *.*

The exciting cauſe cannot be removed till parturition.

Relief of Symptoms.

This is procured by,

1 Horizontal poſture,

2 Swathing the limbs in the mornings with flannel, ſo as to give due reſiſtance.

3 Friction in an upward direction, eſpecially before the applying of the ſwathes.

* See page 125.

Strangury.

Strangury.

This (Iſchuria veſicalis, Micturitio) is ſuppreſſion or a difficult paſſing of the urine.

It occurs oftenest toward the latter period of pregnancy, and ſometimes occaſions moſt uncommon diſtenſion, and even burſting of the bladder *.

Cauſe.

The preſſure of the gravid uterus on the neck of the bladder or urethra.

Cure.

Removal of Cauſes §.

The preſſure of the uterus may be taken off, at leaſt for a time, by the lying, or lateral poſture.

Relief of Symptoms.

This is obtained by,

1 Catheteriſm,

2 Puncture of the bladder from the vagina ||.

* From Mrs. McK------ I extracted at one time by the catheter, eleven pints three gills of urine, Engliſh meaſure. See London Medical Obſervations.

§ See page 125.

|| I have invented a flexible canula for the curved trocar of M. Fleurant, which diminiſhes the irritation cauſed by its remaining in the vagina.

Retroverſion of the Uterus.

This (retroverſio uteri) is the fundus uteri lodged in the cavity of the os ſacrum, and its os internum raiſed towards the oſſa pubis.

It occurs about the fourth month, becauſe the fundus uteri, at this time, begins to riſe above the brim of the pelvis *.

Diagnoſtic.

It is of great conſequence to obtain an early diagnoſtic, becauſe duration increaſes retroverſion.

It ſhews itſelf by,

1 Pain of the uterus,
2 Sickneſs at ſtomach,
3 Hiccup,
4 Vomiting,
5 Suppreſſion of the urine and fæces,
6 Swelling of an oval figure above the oſſa pubis (Urocele),
7 Teneſmus,
8 Obſtruction of the vagina, &c.
9 Fever.

Cauſes.

1 Straining,
2 Diſtenſion of the viſcera, eſpecially of the bladder.
3 Diſtortion §.

* London Medical Tranſactions.
Syſtematic Elements of Surgery.
§ See page 79.

Prognoſtic.

Prognoſtic.

It is always dangerous, particularly when it has continued for any conſiderable length of time.

Cure.

Removal of Cauſes *.

This is neceſſary and a good deal practicable.

The diſtenſion of the bladder and rectum urgently require to be obviated by,

1 Change of poſture of the uterus;
2 Catheteriſm,
3 Clyſters.

Relief of Symptoms.

This requires,

1 Reduction,
2 Retention.

Reduction.

This is a neceſſary, but difficult operation.

It is moſt ſucceſsfully performed while the patient kneels and ſtoops.

Two fingers of the one hand are introduced into the vagina, and two of the other into the rectum, to co-operate in ſuch preſſure as may be found requiſite.

* See page 125.

In caſe this method be fruitleſs, the living lever may be applied advantageouſly to the os internum, to move it downwards in order to diminiſh the impaction.

An inſtrument, nearly of the ſame form *, may be employed with more effect than the fingers in the rectum, to co-operate with the lever.

Should theſe expedients fail, one or other of the following operations muſt be performed:

1 Diminiſhing the bulk of the uterus, by diſcharging the liquor amnii, through

a The os internum, by means of the catheter or ſimilar inſtruments:

b Puncturing the moſt acceſſible part of the uterus by a proper perforator.

Theſe meaſures approach much to the nature of embryotomy.

2 Pelvitomy §.

It is ſurpriſing that Dr. HUNTER had not adverted to the propriety of this expedient ſuggeſted by Dr. PURCEL ||: becauſe he found that the fundus uteri could not, after death, be otherwiſe extracted from the pelvis **.

If timeouſly performed, it may ſave both mother and child.

* A REPRESSOR.

§ See page 75.

|| Medical Commentaries.

** Mr. WILMER's Caſes, in which an inſtance of this affection, fatally miſtaken, is narrated.

Retention.

Retention.

After the uterus has been replaced, it is eaſily kept in its ſituation.

The more difficult the reduction, the more eaſily is the retention effected.

It is favoured by

1 Reſt,
2 Lying poſture.

Hyſterocele.

This is the uterus forming bubonocele.

It ſometimes happens during gravidity.

Diagnoſtic.

It is eaſily diſcovered by,

1 Increaſing ſize,
2 Touching.

Cure.

Reduction may perhaps be practicable in an early period.

When this cannot be done by preſſure, gaſtrotomy or inciſion becomes neceſſary.

Cramp.

This is a partial convulſive affection.

It

It moſt frequently attacks the muſcles of the legs in advanced pregnancy.

Cauſes.

Iritation from the gravid condition.

Cure.

Removal of Cauſes *.

This may be partly done by

Change of poſture.

Relief of Symptoms.

This is obtained by,

1 Friction,
2 Motion,
3 Tepid bath,
4 Opiates.

Aſthma.

This is breathleſſneſs, or confined reſpiration.

Cauſe.

The elevation of the diaphragm, or rather, perhaps, its being prevented by the volume of the uterus from deſcending.

* See page 125.

Cure.

Cure.

Alleviation may be derived, eſpecially when the patient is plethoric, from

1 Phlebotomy,
2 Laxatives.

Hepatitis.

This is inflammation of the liver.
It ſeldom occurs.

Symptoms.

1 Pain, ſometimes ſhooting to the ſhoulder,
2 Vomiting, cauſed by the proximity of the ſtomach,
3 Hardneſs,
4 Fever.

Cure.

The remedies are thoſe of Inflammation, to be enumerated hereafter.

Jaundice.

This (Icterus) is an obſtruction of the bile.
It is ſeldom connected with pregnancy.

Symptoms.

Symptoms.

1 Yellowneſs of the ſurface and urine,
2 Whiteneſs of the alvine fæces,
3 Coſtiveneſs,
4 Lazineſs.

Cure.

Jaundice generally yields to

1 Laxative diet,
2 Soap,
3 Soluble tartar,
5 Gentle exerciſe.

No management incompatible with the gravid condition is to be adopted.

Lues Venerea.

The venereal diſeaſe is excited by a peculiar ſubtile poiſon, communicated generally during the ſexual commerce.

Its forms are

1 Gonorrhœa virulenta,
2 Syphilis.

Gonorrhœa Virulenta.

This is the venereal diſeaſe, confined to the vagina and external parts.

Symptoms.

Symptoms.

1 Matter, like pus,
2 Pain,
3 Micturition,
4 Teneſmus.

Source.

The glands of the affected ſurface.

Cauſe.

The poiſon acting on the glands, &c.

Cure.

Removal of Cauſes *.

The poiſon cannot be directly removed; indeed it has acted before it is diſcovered.

Relief of Symptoms.

This requires topical applications,

1 Mucilage,
2 Oil,
3 Mercury,
4 Anodynes.

It often diſappears ſpontaneouſly.

* See page 125.

Syphilis.

This is the effect of the venereal poiſon after it has entered the ſyſtem.

Symptoms.

1 Ulcer (chancre);
2 Bubo, or inflammation and ſuppuration of a lymphatic gland;
3 Ulcer of the almonds of the ears, &c.
4 Copper-coloured, ſcaly, or cruſted ſpots;
5 Caries.

Cure.

Removal of Cauſes *.

The poiſon, the cauſe of all the ſymptoms, is either deſtroyed, or its action eluded, by

1 Mercury--its mildeſt and moſt effectual preparations are,

Pilul. Mercurial. P. E.
Ung. Mercurial. P. E.

2 Opium.

Relief of Symptoms.

The occaſional cauſe, properly removed, in general not only gives relief but complete cure.

* See page 125

The

The remedies ought only to be urged to alleviate the ſymptoms till after delivery, when the cure is to be completed.

Dropſy.

This is a morbid collection of the ſerous or watery part of the blood in the cells of the fatty membrane, or in a cavity.

The former ſituation gives Anaſarca, or Oedema, to which the following remarks refer:

Oedema often appears on the feet, legs, and even the os externum, during advanced pregnancy, to a very conſiderable degree.

Symptoms of Oedema.

1 Swelling,
2 Paſtineſs,
3 Uniformity,
4 Upward and ſlow progreſs.

Cauſes.

1 Diminiſhed abſorbtion,
2 Compreſſion from the gravid uterus.

Cure.

Removal of Cauſes *.

This cannot be till parturition.

* See page 125.

Relief of Symptoms.

This is obtainable by,

1 Recumbent poſture,
2 Friction,
3 Bandage *.

Abortion.

Miſcarriage (abortus) is a premature expulſion of the fœtus.

Abortion may take place at any period of pregnancy.

It moſt frequently occurs about the third and fourth months.

Symptoms.

1 Pain about the loins and os ſacrum,
2 Teneſmus,
3 Flooding,
4 Sickneſs,
5 Fever.

Theſe increaſe in proportion to the aborting tendency.

Cauſes.

I. Prediſponent;

1 Plethoric ſtate,
2 Irregular menſtruation.

* See Mr. WHITE's Treatiſe.

II. Occaſional;

II. Occaſional;

On the Part of the Mother.

1 Stimulants,
2 Exertion,
3 Agitation,
4 Diſeaſe---Fever, Lues venerea, &c.

On the Part of the Child.

1 Diſeaſe,
2 Death.

III. Proximate;

Separation of the placenta or chorion.

Prognoſtic.

When the ſymptoms are intenſe, eſpecially the flooding, abortion is ſcarcely to be prevented.

The danger principally flows from the hæmorrhage; this bears a proportion to the dilatation of the veſſels, which is as the progreſs of pregnancy; therefore, the later the more dangerous.

Cure.

Removal of Cauſes *.

This demands ſpecial attention.

* See page 125.

Relief

Relief of Symptoms.

The flooding and other ſymptoms are alleviated, and an opportunity afforded for the removal of the proximate cauſe, by,

1 Early and plentiful blood-letting,
2 Recumbent poſture,
3 Mild laxative injections, to prevent coſtiveneſs,
4 Coolneſs,
5 Opiates,
5 Reſt.

If theſe Remedies are incapable to prevent abortion, and the flooding is violent, it may be promoted by,

1 The hand,
2 Inſtruments—placenta-forceps, &c.

Manual aſſiſtance is almoſt inadmiſſible previous to the third or fourth months.

Mole.

A mole (mola) or falſe conception, is a rude fleſh-like maſs in the uterus.

Cauſes.

The mole is produced by,

1 The placenta, &c. of a degenerate fœtus (Mola ſimplex);

2 Portions

2 Portions of the placenta or membranes after abortion or delivery, increaſed by the coagulable matter of the blood;

3 The coagulable part of the blood alone remaining after hæmorrhage (Mola ſpuria).

In whatever way, or by whatever cauſe produced, the mole acquires the ſhape of the uterine cavity, and is of various bulk; and, after ſome months, is ſpontaneouſly delivered.

It is ſuppoſed that the mole and fœtus may be preſent in the uterus together; this concurrence is called mola mixta *.

Falſe Labour.

This (partus ſpurius) is generally erratic pains of the nature of colic.

Cauſes.

1 Coſtiveneſs,
2 Preſſure on the inteſtines.

Cure.

Removal of Cauſes *.

Coſtiveneſs is obviated by,

Laxatives adminiſtered by the mouth and anus.

* See page 125.

Relief

Relief of Symptoms.

The pain is allayed by,

Opiates occaſionally.

III. *Diſeaſes during Parturition.*

1 Convulſion,
2 Flooding,
3 Laceration of the { Uterus, Bladder, Perinæum,
4 Luxation of the oſſa pubis.

Convulſion.

This is involuntary muſcular action.

Puerperal convulſion ſeems to be of the epileptic kind.

It for the moſt part takes place after the labour is conſiderably advanced.

The fits are frequent and very violent, and the mother is inconſcious, even during their intervals.

Cauſes.

The prediſponent is,

Idioſyncraſy, giving high irritability.

The

The occaſional is

Irritation or diſtenſion.

Prognoſtic.

It cannot exiſt without danger.

Cure.

Removal of Cauſes *.

This is effected by delivery, which is to be promoted as circumſtances permit, by,

1 The hand,
2 The lever,
3 The forceps,
4 Turning.

Alleviation of Symptoms.

This is acquired by,

1 Blood-letting,
2 Tepid bath,
3 Mild injections,
4 Opiates.

When the delivery is completed, the convulſive fits for the moſt part ſuddenly diſappear.

* See page 125.

Flooding.

This is uterine hæmorrhage.

Source.

The dilated extreme arteries of the uterus chiefly.

Cauſe.

A ſeparation more or leſs extenſive of the placenta from the uterus.

This neceſſarily happens when the placenta adheres to the circumference of the os internum (placenta prævia).

It thus appears, that flooding is of the nature of the diſcharge connected with abortion.

Prognoſtic.

It is always dangerous, and often produces, very ſuddenly, fatal conſequences.

Cure.

Removal of Cauſes *.

The exciting cauſes cannot in general be obviated.

Relief of Symptoms.

Flooding can only be checked by the contraction of the uterus and bleeding veſſels; de-

* See page 125.

livery

livery is therefore to be effected as expeditiouſly as poſſible.

It is fortunate when the dilatation permits proper aſſiſtance.

The means enumerated for this purpoſe under convulſion are to be employed.

When the dilatation is ſmall, the flooding exceſſive, and no labour pains, the delivery muſt be completed by adequate force.

Mean time, all exertion on the part of the patient is to be avoided as much as may be.

Laceration of the Uterus.

Laceration or burſting of the uterus, a moſt diſaſtrous event, is happily a rare one.

The manner and degree of it is various *.

Symptoms.

1 The ſudden ceaſing of the pains,
2 Alteration externally and internally,
3 Flooding,

* It is alledged that the uterus has been torn from the vagina (uteri Segmentum inferius a vagina avulſum) by the hand introduced for turning being puſhed too violently upwards.

After the child has fallen through the laceration into the abdomen, the uterus has been healed, and the fœtus diſcharged by abceſs, &c.

Sometimes it has become petrified (Lithopædia) and produced what is called perennial geſtation.----Hiſtoire de la Societe Royale de Medicine; anne 1776, p. 308.

PLENCK, Elem. Art. Obſt. p. 129.

4 Noiſe or crack,
5 Sinking pulſe,
6 Cold extremities,
7 Fainting.

Cauſes.

1 Original delicacy,
2 General diſtenſion,
3 Partial preſſure.

Prognoſtic.

This diſeaſe is always highly dangerous, and often fatal.

Cure.

Removal of Cauſes *.

This is procured by delivery, effected as taught.

A partial projection of the child through the wound ſtill permits delivery.

An entire eſcape of the child into the abdominal cavity, renders hyſterotomy neceſſary.

Relief of Symptoms.

After delivery, the hæmorrhage, &c. are abated, and the healing promoted, by

1 Anodynes,
2 Cold,
3 Reſt.

* See page 125.

Lacer ation

Laceration of the Bladder.

Laceration or burſting of the bladder does not often happen.

Cauſes.

1 Diſtenſion,
2 Inſtruments---forceps, &c.

Cure.

Removal of Cauſes *.

Theſe having already acted, cannot be directly removed.

Relief of Symptoms.

The healing is promoted by,

1 The catheter,
2 Suture.

Laceration of the Perinæum.

Wound of the peritonæum is an obvious affection.

Cauſes.

1 The child's ſize,
2 Inſtruments.

* See page 125.

Cure.

Cure.

Removal of Cauſes *.

This may be adverted to, ſo as to moderate the degree.

Relief of Symptoms.

The healing or concretion is favoured by,

1 Soft dreſſing,
2 Eccoprotics,
3 Laxative injections.

Suture is never admiſſible.

Luxation of the Oſſa Pubis.

This is a laceration of the ſymphyſis pubis. It very rarely happens, and the conſequent motion gives an eaſy diſcovery.

Cauſe.

The diſproportion between the bulk of the child and capacity of the pelvis.

Cure.

Removal of the Cauſe *.

The diſeaſe itſelf has a direct tendency to effect this.

* See page 125.

Relief

Relief of Symptoms.

This requires,

1 Reduction,
2 Retention.

The latter procured by bandage and poſture, is to be continued till the concretion be complete.

IV. *Diſeaſes during Parturition.*

1 Inverſio uteri,
2 Lochiorrhœa,
3 Iſchuria,
4 Inflammation,
5 Hyſteritis,
6 Peritonitis,
7 Cyſtitis,
8 Maſtodynia,
9 Rhagas papillæ,
10 Fever,
11 Puerperal fever,
12 Weed,
13 Milk-fever,
14 Incontinence of urine.
15 Mania,
16 Hemiplegia.

Inverſio

Inverſio Uteri.

Inverſion of the womb is really a prolapſus.

This affection happens immediately after delivery, and before the uterus has contracted itſelf.

Diagnoſtic.

Inverſion cannot be miſtaken for any other affection.

Cauſes.

1 Drawing by the chord,
2 Atony.

Cure.

Removal of Cauſes *.

This requires every poſſible attention.

Relief of Symptoms.

This is obtained by,

1 Repoſition immediately effected by preſſure in a juſt direction, while the os externum is kept dilated, ſo as at ſame time to reſtore the proper cavity §;

2 Retention; this reſults from the contraction.

* See page 125.

§ By obſerving theſe rules, I reduced an inverted uterus, after the attempts of another practitioner had been fruitleſs. The loſs of blood was ſo great that the patient died ſoon afterwards.

Lochiorrhœa.

This is an exceſſive diſcharge of blood after delivery.

This hæmorrhage is eſſentially of the paſſive kind.

Symptoms.

The ſame with thoſe of flooding.

Cauſes.

1 Atonic condition,
2 Wound.

Prognoſtic.

Lochiorrhœa is dangerous according to quantity, which is eaſily aſcertained.

Cure.

Removal of Cauſes *.

This requires all poſſible attention.

Relief of Symptoms.

This is attainable by,

1 Reſt,
2 Anodynes,

* See page 125.

3 Cold *,
4 Preſſure on the hypogaſtrium,
5 Plugging the os externum.

The effect of ſaturine applications is doubtful.

Iſchuria Veſicalis.

This is a ſuppreſſion of the diſcharge of urine.

Symptoms.

1 Pain about the pubes,
2 Diſtenſion of the bladder (Urocele),
3 Non-excretion.

Cauſes.

1 Contuſion,
2 Inflammation,
3 Atony.

Prognoſtic.

Iſchuria veſicalis in general is not a mortal affection, unleſs the bladder be much deſtroyed or ruptured.

* Cold water, and even ice, have been introduced into the vagina and uterus, with advantage. Dr. LEAK's Diſeaſes of Women.

Cure.

Cure.

Removal of Cauſes *.

This muſt be founded on a careful enquiry into the particular occaſional cauſe.

Relief of Symptoms.

The diſtreſs is relieved by,

1 Catheteriſm,
2 Puncture.

Inflammation.

This in every place, being eſſentially the ſame diſeaſe, and requiring the ſame means of cure, it is therefore proper to conſider it in a general way, before we advert to ſpecialities from ſituation, &c.

Symptoms.

1 Throbbing or pulſatory pain,
2 Swelling,
3 Redneſs,
4 Heat,
5 Fever.

* See page 125.

Cauſes.

1 Prediſponent;

a Plethora,
b Vigour;

2 Occaſional;

a Mechanical, acting by impulſe, form, ſize, &c.
b Chemical, operating by internal decompounding qualities.

3 Proximate;

The change induced by the remote ones.

Progreſs.

About the third day after the action of the occaſional cauſes (the mechanical are the moſt common) the inflammation manifeſts itſelf by its ſymptoms, ſucceeding one another nearly in the ſpecified order.

The local affection always precedes the fever.

The inflammation thus conſtituted, according to circumſtances, takes one of the following

Terminations.

1 Diſcuſſion or early diſappearance, leaving the parts it had occupied ſeemingly unchanged as to form or function.

2 Sup-

2 Suppuration, or the production of pus or purulent matter, commonly conſtituting an abſceſs or boil.

3 Mortification or the death of the affected parts, ſometimes called ſphacelus or ſphacelation.

The mortifying tendency is named gangrene.

Prognoſtic.

Diſcuſſion is plainly the moſt favourable termination, and next to it ſuppuration.

The reſults of inflammation are, as,

1 The quantity,
2 The rapidity.

Theſe bear a proportion to the cauſes.

Beſides theſe leading circumſtances, the prognoſtic muſt alſo regard the ſituation.

Cure.

Removal of Cauſes *.

The occaſional cauſes are as far as poſſible to be checked and removed.

Relief of Symptoms.

Antiphlogiſtics are,

* See page 125.

1. General;

I. General;

1 Blood-letting,
2 Cathartics,
3 Spare diet.
4 Dilution,
5 Tepid bath,
6 Coolneſs,
7 Reſt,
8 Opium.

II. Topical;

1 Bleeding—leeching, &c.
2 Tepid bath——poultice, fomentation, &c.
3 Opium---ol. anodyn. &c.

Theſe remedies ought obviouſly to be regulated by,

1 Habit of the patient,
2 Degree,
3 Situation,
} of the diſeaſe.

Diſcuſſion is always to be aimed at, and for this purpoſe the antiphlogiſtics ought to be applied early; for if they fail to give this effect, they always proportionally circumſcribe the ſuppurating proceſs, or render it leſs deſtructive.

Hyſteritis.

This is inflammation of the uterus.

It does not occur ſo often as might be expected.

Symptoms.

1 Pain in the hypogaſtrium,
2 Hardneſs,
3 Tumour,
4 Heat,
5 Stoppage of the lochia,
6 Fever commencing with ſhivering.

Cure.

Diſcuſſion is always to be anxiouſly attempted.

To the os internum may be applied,

1 The tepid bath,
2 Opiates.

It is a great misfortune when ſuppuration enſues, becauſe, independently of its bringing on ulcer of difficult cure, the organ is likely to be diſqualified for impregnation.

Mortification of the uterus and ſurvival, ſeem to be incompatible.

Peritonitis.

Peritonitis.

This is inflammation of the peritonæum, and more or leſs of the parts it inveſts.

When inflammation affects the inteſtinal peritonæum it may be regarded as enteritis.

It occurs often.

Symptoms.

1 Pain, encreaſed by preſſure and motion,
2 Swelling,
3 Hardneſs, } of the belly,
4 Fever, preceded by ſhivering, &c.

Cure.

The tepid bath may be uſed externally and internally.

When the inteſtinal peritonæum is affected, purging is a doubtful practice.

Anodynes have excellenr effects: they may be given *per anum* in mucilage or milk.

There is much reaſon to believe that this inflammation has often been miſtaken for and treated as puerperal fever.

Cyſtitis.

This is inflammation of the bladder.

Symptoms.

Symptoms.

1 Pain about the pubes,
2 Micturition or dysuria,
3 Teneſmus.

Cauſes.

1 Preſſure by the head, or other part of the child.
2 Inſtruments undextrouſly employed.

Cure.

The affected organ is favourably circumſtanced to admit of injections of

1 Tepid water,
2 —— milk,
3 —— mucilage,
4 —— oil,
5 Anodynes.

Maſtodynia.

This is inflammation of the mammary glands.

It is very frequent and diſtreſſing, and has a ſtrong tendency to ſuppuration.

Cauſe.

Imperfect excretion of the milk.

Animals in a ſtate of nature ſeem to be much exempted from it.

Cure.

The earlieſt and fulleſt uſe of antiphlogiſtics is neceſſary to procure diſcuſſion.

Suppurration deſtroys a large ſhare or the whole of the milk glands.

As ſoon as pus is diſcovered, it is to be diſcharged by a proper inſciſion, in order to limit its production and effect.

Rhagas Papillæ.

This is chapped nipple.

It is frequent, and often interrupts nurſing.

Cure.

Healing is favoured by,

1 Anodyne poultice,
2 Fine lint,
3 Wax liniment,
4 A cover, or hood.

The laſt is at leaſt uſeful and protecting.

Fever.

A general view of fever may be taken, as introductory to the conſideration of the puerperal kind of it.

Definition.

Definition.

Fever is a leſion of all the organs and functions.

Symptoms.

Irregularities of

1 Strength,
2 Circulation,
3 Temperature,
4 Reſpiration,
5 Senſibility,
6 Reaſon,
7 Sleep,
8 Secretion,
9 Excretion.

The commencement is very conſtantly marked by trembling, ſhivering, or a ſenſe of coldneſs (horror and rigor).

Kinds.

Fever is,

1 Idiopathic,
2 Symptomatic,

Idiopathic fever is,

1 Continued,
2 Intermittent,
3 Remittent.

These distinctions are important, because they affect the method of cure.

The following remarks refer to idiopathic continued fever.

Remote Causes.

1 Febrile poison,
2 Heat,
3 Cold,
4 Moisture,
5 Passion.

The first is most powerful and frequent.

Modifications.

The principal modifications, complexions, types, or tendencies of fever are,

1 Inflammatory,
2 Nervous,
3 Putrid.

These result chiefly from the habit.

Inflammatory fever appears in the sanguine subject, and the symptoms are strongly marked.

Nervous fever (Typhus) has the symptoms in general more moderate than those of the inflammatory sort, but its duration is longer.

Putrid fever upon the whole resembles typhus. It is in fact nervous fever with the putrescent tendency.

The

The ſtate that may be called putridity ſeems to be incompatible with life.

The ſymptoms of febrile putreſcency, are,

1 Fœtor,
2 Blackneſs of the mouth,
3 Looſe blood,
4 Paſſive hæmorrhage,
5 Petechial ſpots and vibices,
6 Great weakneſs.

Perhaps fever ſeldom or never from the beginning has the putreſcent tendency.

This ſeems to be the creature of the febrile courſe.

It may be connected with the inflammatory as well as the nervous kind.

Proximate Cauſe.

An alteration of the ſtructure or animal compound.

Cure.

Removal of Cauſes *.

This is clearly proper, and is partly effected by,

1 Ventilation,
2 Bathing,
3 Cleanlineſs.

* See page 125.

Alleviation

Alleviation of Symptoms.

The inflammatory condition is moderated by,

1 Blood-letting,
2 Cathartics,
3 Spare diet,
4 Coolneſs,
5 Diluents,
6 Tepid bath,

The puterefcent tendency is counteracted by,

1 Dietetics,
2 Wine *,
3 Acids §,
4 Peruvian bark,
5 Diluents,
6 Laxatives,
7 Sedatives.

Proper food is the moſt powerful antiſeptic,

* KOUMISS, a vinous liquor prepared by the Tartars from mares milk, is likely to prove very ſalutary during the putrid tendency. A diſſertation on this ſingular production, by Dr. GRIEVE, phyſician in Moſcow, is given to the Roval Society of this city.

§ Dr. GRIEVE informed me, that he preſcribed a very liberal uſe of vinegar, during a putrid fever, which prevailed upon the borders of Ruſſia, with the greateſt advantage. The mode was, drenching cloths in it, and applying them very generally to the ſurface. He imputed his ſucceſs chiefly to the coolneſs ariſing from its temperature, in the firſt inſtance, and from its evaporation afterwards.

Typhus,

Typhus, ſhewing neither the inflammatory nor putrid ſymptoms, requires a middle courſe as to the cure.

It ſeems to be aſcertained, that the uſual duration of continued fever is not eaſily ſhortened; therefore, regulating, moderating, and circumſcribing the tendencies and ſymptoms, is perhaps the utmoſt that the phyſician can effect, or ſhould attempt.

Puerperal Fever.

This generally invades within two or three days after delivery.

Some authors have regarded it as always inflammatory, others as putreſcent.

Hiſtories and diſſections ſhew, that it is ſometimes the one and ſometimes the other.

The duration is various, often extending to ten, twelve, or ſixteen days.

For the moſt part, there is pain and evident affection of the abdominal parts. On this account, it is probable, that fever ſymptomatic of peritonitis, &c. has often been conſidered as idiopathic.

It is not likely to be epidemic.

Cure.

It is evident, that the remedies muſt be ſuited to the tendency, as taught.

Weed.

Weed.

This (ephemera) is a feveriſh ſtate of ſhort duration.

It ſometimes diſappears within the ſpace of one or two days.

Its invaſion is always marked by ſhivering.

It often ſeems to be ſymptomatic.

Cure.

The remedies are to be ſuited to its

1 Tendency,
2 Degree.

Milk-Fever.

This (febris lactea) appears about the third day after delivery.

Cauſe.

The alteration of the milk-glands, in conſequence of the proceeding ſecretion.

In general this diſeaſe may ſafely be conſidered as ſymptomatic, or at leaſt verging to the inflammatory ſtate. Indeed maſtodynia is ſometimes produced.

Cure.

Cure.

Removal of Cauſes *.

This is partly to be done by carefully ſucking or drawing off the milk diſtending and irritating the excretory ducts.

Alleviation of Symptoms.

The ſymptoms are ſoftened by

Antiphlogiſtics generally and locally applied.

Incontinence of Urine.

This (ſtillicidium urinæ) is a very incommoding accident.

Cauſe.

Injury of the bladder and its ſphincter, inflicted by,

1 The child,
2 Inſtruments.

Prognoſtic.

The injury is repaired gradually by the healing power, and the function of the bladder for the moſt part reſtored.

* See page 125.

Cure.

Removal of Cauſes *.

This has obviouſly no place.

Alleviation of Symptoms.

This is obtained by,

1 Tonics locally,
2 Jugum.

Mania.

Inſanity or madneſs occurs now and then after parturition, and ſeems connected with it.

Cauſes.

It is difficult to point theſe out.
May its production be referred to,

1 Changes in the ſyſtem of the vena portarum?

2 Matter abſorbed from the uterus?

3 A leſion of the ſenſorium, from the violent exertion during parturition?

It may be ſymptomatic of inflammation.

* See page 125.

Cure.

Cure.

Removal of Cauſes *.

Cauſes to be inveſtigated and obviated.

Relief of Symptoms.

According to habit, &c. relief may be gained by,

Antiphlogiſtics applied in a due degree.

Soluble tartar has been recommended as an alterative and laxative, peculiarly uſeful.

Hemiplegia.

This is of the nature of apoplexy.
It is unfrequent.
Palſy of one ſide is the chief ſymptom.

Cure.

Antiphlogiſtics in the beginning at leaſt may be uſeful.

* See page 125.

V. *Diſeaſes during Infancy.*

The principal infantile diſeaſes are,

1 Aſphyxia,
2 Fracture,
3 Luxation,
4 Contuſion,
5 Ecchymoſis,
6 Harelip,
7 Cleft palate,
8 Tongue-tying,
9 Imperforated anus,
10 ——— urethra,
11 ——— noſe,
12 Digitation,
13 Webbing,
14 Club-foot,
15 Thruſh,
16 Jaundice,
17 Raſh,
18 Fever,
19 Roſe,
20 Purging,
21 Colic,
22 Rupture,
23 Syphylis,
24 Weaning-braſh,
25 Atrophia,
26 Hydrocephalus,
27 Dentition,
28 Convulſion.

Aſphyxia

Aſphyxia.

This is a temporary ſuppreſſion of the functions, or a ſeeming privation of life.

Diagnoſtic.

This, otherwiſe ſelf-evident, may be miſtaken for death, which often happens a little before or during parturition.

Death is often marked by,

1 Fœtor
2 Diſcolouring } of the liquor amnii,
3 Lividity,
4 Flabbineſs,
5 Excoriation,

Exciting Cauſes.

1
2 Compreſſion of the { head, chord,
3
4 Racking of the { trunk, neck.

Proximate Cauſe.

A leſion of organization.

Diſtinctions.

According to the cauſes that have acted, aſphyxia is,

1 Apoplectic,

1 Apoplectic,
2 Mephitic,
3 Vulnerary.

Apoplectic Aſphyxia.

Aſphyxia is apoplectic when induced by compreſſion of the head.

Cure.

Removal of Cauſes *.

Deformity of the head, which ſometimes ſeems to continue the compreſſion after birth, may be ſomewhat removed by gentle preſſure.

Alleviation of Symptoms.

Relief is attainable by

1 Bleeding from the chord or jugular veins,
2 Tepid bath.

Mephitic Aſphyxia.

Aſphyxia is mephitic when cauſed by obſtruction of the umbilical chord.

Cure.

Removal of Cauſes *.

The compreſſion is to be removed as ſoon as poſſible.

* See page 125.

Alleviation

Alleviation of Symptoms.

This is procured by

1 Promoting reſpiration by inflating the lungs with pure air, while the head and neck are in an unconſtrained and expoſed attitude *.

2 Supporting the vital temperatue by,
  a Warm flannel,
  b Tepid bath,
  c Warm injection into the ſtomach, &c.

3 Stimulants,
  a Friction,
  b Heat,
  c Æther,
  d Spirit.

Vulnerary Aſphyxia.

Aſphyxia is vulnerary when brought on by racking or undue drawing.

Cure.

Removal of Cauſes §.

As little force as poſſible to be employed in the delivery.

* I have invented an apparatus for throwing pure air immediately into the lungs. It is ſimple and convenient. It ſerves likewiſe to inject tepid water, &c. into the ſtomach and rectum.

§ See page 125.

Alleviation

Alleviation of Symptoms.

Relief may be expected from,

1 Blood-letting, especially if any distention or rupture of the vessels be suspected or evident;

2 Relaxed posture;

3 Emollients—poultice, &c.

To procure revival of the still-born child, is an important business in the eye of philanthropy; our efforts and perseverance ought to be great.

Success gratifies our finest feelings.

Fracture.

Fracture of the bones of the limbs is induced by violence during delivery.

Cure.

The cure demands,

1 Reposition,

2 Retention.

Luxation.

Dislocation of the bones of the limbs, like fracture, is the effect of violent delivery.

Cure.

Cure.

The cure requires,

1 Reduction,
2 Retention.

Contuſion.

This is induced by the preſſure of the lever, forceps, &c.

It is eaſily diſcovered, and conſiſts in a diſtraction of the ſolids, and a proportional congeſtion or extravaſation of the fluids.

Cure.

Removal of Cauſes *.

Cauſes ought to be avoided and obviated.

Relief of Symptoms.

This, eſpecially when inflammation appears, requires,

1 Leeching,
2 Poultice.

* See page 125.

Ecchymoſis.

This is ſwelling, and often diſcoloration of the ſcalp, face, &c. induced during lingering birth.

Cure.

Removal of Cauſes *.

Cauſes are to be obviated as much as poſſible.

Relief of Symptoms.

This demands,

1 Leeching,
2 Poultice,
3 Emollients.

Harelip.

This is a frequent deformity, which, by preventing ſucking, proves very deſtructive.

Cure.

This requires,

1 Converſion into wound of a form favourable to healing;

2 Re-union procured by combining the twiſted and falſe ſutures §.

This plan may be attempted early.

* See page 125.
§ Syſtematic Elements of Surgery.

Cleft

Cleft Palate.

This is a perforation or ſlit of the palate, giving an unuſual communication betwixt the mouth and the noſe.

This affection has the ſame effect as hare-lip, to the nature of which it is much allied: indeed, they are ſometimes both preſent at once *.

Cure.

When the deficiency is ſmall, attempts may be made to procure concretion by rawing the circumference of the hole.

When this is impracticable, on account of largeneſs, a temporary relief may be obtained by a plug of ſponge, &c.

Tongue-tying.

This is a deformity of the bridle of the tongue (frænum linguæ), hampering the forward motion, and preventing ſucking.

Cure.

The frænum is divided ſafely by a pair of ſmall ſciſſars, guarded at the points by a ſlit ſilver plate §.

* Syſtematic Elements of Surgery.
§ Syſtematic Elements of Surgery.

Imperforated Anus.

The want of an anus, or orifice of the inferior extremity of the inteſtine (anus imperforatus) is eaſily diſcovered.

Cure.

Cautious inciſion or perforation is neceſſary. It is kept pervious afterwards by,

1 Lint,
2 Sponge,
3 Bougie.

Imperforated Urethra.

This hinders the diſcharge of the urine; it occurs ſeldom.

Cure.

This is obtained by,

Inciſion.

Imperforated Noſe.

The abſence of the noſtrils is rare *.
It prevents ſucking.

* I met with an inſtance in which there ſeemed to be a total want of the cavity of the noſe. The incision was therefore impracticable.

Cure.

Cure.

Inciſion may be attempted.

Digitation.

This is a præternatural number of fingers, &c.

Cure.

When the child is advanced ſomewhat in life the ſupernumerary parts may generally be amputated.

Webbing.

This (anchyloſis) is a præternatural concretion of the fingers or toes to one another.

Cure.

When the child is ſomewhat grown up the concretion may be deſtroyed by the knife.

Club-Foot.

This affection is deformity of the ankle-joint, occaſioned by the legs croſſing one another in utero.

Cure.

Cure.

This demands,

1 Reduction,
2 Retention.

The laſt muſt be obtained by proper ſplints, and thoſe continued till the joint be ſufficiently rectified.

Thruſh.

This is an aphthous or ulcerous ſtate of the mouth or throat (fauces).

It is ſaid to extend along the whole of the alimentary canal, at leaſt it is ſometimes viſible at the anus.

The white cruſt is of various thickneſs.

It appears a few days after birth, and ſeems to be connected with a diffuſed inflammation, (eryſipelas).

When extenſive it excites fever, and not ſeldom proves fatal.

Cauſe.

The exciting cauſe ſeems to be the irritation of the

1 Air,
2 Food.

Cure.

Cure.

Removal of Cauſes *.

This is to be anxiouſly attended to.

Relief of Symptoms.

The ſymptoms are ſoftened by,

1 Emollients,
2 Borax,
3 Opiates.

Jaundice.

This (icterus) is commonly called the yellow gum, becauſe it gives a yellowneſs of the ſurface.

Symptoms.

1 Yellowneſs,
2 Sluggiſhneſs,
3 Coſtiveneſs,
4 White fæces,
5 Yellow urine.

Cauſe.

Whatever blocks up the gall ducts, or prevents excretion of the bile, may be an exciting cauſe.

* See page 125.

Is the alteration at birth of the blood's tranſmiſſion through the liver, to be conſidered as concerned in giving riſe to infantile jaundice?

Prognoſtic.

This diſeaſe is tranſient and ſeldom dangerous.

Cure.

Removal of Cauſes *.

Obſtructing cauſes to be carefully inveſtigated and obviated by,

1 Food of ſuited quality,
2 Laxatives---magneſia, &c.

Relief of Symptoms.

The ſymptoms diſappear as ſoon as the productive cauſe has been removed.

Raſh.

This, commonly called the red gum §, is an efflorescence or eruption more or leſs extended over the ſkin.

It ſeems to conſiſt in inflammation; at leaſt, this is connected with it.

* See page 125.

§ FOSTER's Principles and Practice of Midwifery, p. 313.

Cauſes.

Cauſes.

1 Expoſure,
2 Dreſs,
3 Acrid matter.

Cure.

Removal of Cauſes §.

Exciting cauſes require to be obviated.

Alleviation of Symptoms.

This is effected by,

1 Laxatives,
2 Tepid bath,
3 Soft dreſs.

Fever.

Infantile fever is frequent on account of peculiar ſenſibility.

Cauſe.

Irritation on the inteſtines, &c.

Cure.

Removal of Cauſes *.

The utmoſt attention is to be directed to this indication.

* See page 125.

Relief of Symptoms.

This requires, according to habit,

1 Bleeding by leeches,
2 Gentle purging,
3 Tepid bathing,
4 Opiates.

Roſe.

This (eryſipelas) is a ſuperficial inflammation, often ſhifting place, and becoming ſometimes general.

Cure.

Eryſipelas being an inflammation, it requires the remedies already ſpecified *.

Purging.

This is a frequent diſeaſe of the infant, and often a mortal one.

Exciting Cauſes.

1 Improper food; hence indigeſtion, flatulence, acidity, &c.
2 Dentition.

* Dr. UNDERWOOD has marked eryſipelas frequently as a fatal diſeaſe. His practice in it ſeems a good deal problematical. See his Diſeaſes of Children.

Cure.

Cure.

Removal of Cauſes *.

Attention to this indication is indiſpenſible,

Relief of Symptoms.

Acidity is corrected by antacids,

1 Alkaline ſalt,
2 Magneſia,
3 Chalk,
4 Animal earth.

Irritation may be diminiſhed by,

1 Animal food,
2 Mucilaginous injections,
3 Opiates,

And when it flows from dentition by,

4 Inciſion of the gum over the protruding teeth.

Colic.

Gripes frequently torment the infant,

Cauſes.

1 Flatus,
2 Irritation.

* See page 125.

Cure.

Removal of Cauſes *.

Cauſes are to be diligently obviated.

Relief of Symptoms.

This requires,

1 Carminatives,
2 Laxative injections,
3 Opiates.

Rupture.

This (hernia) frequently occurs in the male infant.

It is often of the congenial kind, and conſequently air and the other contents of the gut are admitted to the bottom of the ſcrotum; hence it is called wind-rupture, &c.

Cauſes.

1 Crying,
2 Straining.

Cure.

Palliation, if not complete cure, is obtained by,

1 Reduction,
2 Bandaging giving retention.

* See page 125.

Syphilis,

Syphilis.

The Syphilis, or effects of the venereal poiſon, ſeems to be often communicated to the unborn child; at leaſt it appears ſoon after birth in the form of blotches, cruſts, ulcers, &c.

Cure.

Mercury may be ſafely adminiſtered.

Weaning-Braſh.

This is violent purging, frequently attended with vomiting, waſting, &c.

Cauſes.

1 Early weaning,
2 Improper food.

Cure.

Removal of Cauſes *.

This is highly intereſting.

Relief of Symptoms.

This demands according to circumſtances,

* See page 125.

1 Reſtoration

1 Reſtoration of the nurſe's milk,
2 Nutritious food §,
3 Opiates.

Atrophia.

This is a waſhing or ſhrinking of the ſoft parts, often going on to very complete emaciation.

Cauſes.

1 Want of food, milk, &c.
2 Weakneſs of the ſtomach, &c.
3 Obſtruction of the glands of the meſentery, producing a large and hard belly (tabes meſenterica).

Cure.

Removal of Cauſes *.

Timely attention to this is highly important.

Relief of Symptoms.

This may be acquired by,

1 Suited food,
2 Cordials to invigorate the bowels---wine, ſpirit, &c.

§ The gruelly or mealy food, with an admixture of ſugar is the moſt improper that could be deviſed, being very fermentative and difficultly aſſimilated.

* See page 125.

3 Slight

3 Slight mercurial doſes, when obſtruction is ſuſpected.

Hydrocephalus.

This is commonly named water-in-the-head.

As formerly mentioned, this is local dropſy, and may be,

1 External, or under the ſcalp and without the ſkull;

2 Internal, or within the brain.

The firſt is eaſily diſcovered, and often diſappears ſpontaneouſly, if not we muſt try,

1 Stimulants—friction, &c.
2 Evacuants—bliſters, iſſue,
3 Inciſion.

The internal kind is the moſt alarming.

Symptoms.

1 Irregular pulſe, at firſt ſtrong, and afterwards quick, or febrile;
2 Vomiting, eſpecially in the beginning;
3 Convulſion;
4 Diminution, and at laſt a total loſs of ſight;
5 Sleepineſs and torpor;
6 Coſtiveneſs;
7 Large head.

Cauſe.

Cauſes.

1 Rickety habit,
2 Violence, ſtroke, &c.

Cure.

Removal of Cauſes *.

This is too often impoſſible.

Relief of Symptoms.

This is attempted by,

1 Blooding at the temples with leeches when the child is ſtrong and the face and eyes red and fluſhed;
2 Purging with ſweet mercury, &c.
3 Bliſtering on the head;
4 Mercurial frictions, largely applied §.

Spina Bifida.

This is a round tumour ſituated on the ſpine generally at the loins.

It exiſts before birth, and partakes of the nature of Hydrocephalus internus.

* See page 125.

§ This diſeaſe appears to me to be incurable. I have never ſeen one caſe of it in which I could ſay a cure had been effected.---Some authors are of oppoſite ſentiments, therefore an attempt may always be made.

Dentition.

The irritation of the teething excites fever, purging, and frequently convulsion.

These effects are often ascribed to hydrocephalus internus.

Cure.

Removal of Causes *.

This is exceedingly important, and may be promoted by,

Incision of the gums.

Relief of Symptoms.

This may require,

1 Bleeding,
2 Tepid bath,
3 Opiates.

Convulsion.

This is involuntary muscular action, often strong and long continued.

Causes.

The peculiar sensibility of the young system subjects it to enormous motions from

* See page 125.

ſlight cauſes, ſuch as irritations from teething, flatus, &c.

Cure.

Removal of Cauſes *.

This requires every attention, as recovery much depends upon it.

Alleviation of Symptoms.

When the pulſe is hard and ſtrong, leeching may be neceſſary.

The fits are moderated by,

1 Opium,
2 Tepid bath.

* See page 125.

THE END.

EXPLANATION OF THE PLATES.

PLATE A.

FIG. 1.

The Os Innominatum.

A Os ilium.
- A Anterior ſuperior ſpinous proceſs.
- BB Spine.
- C Inferior ſpinous proceſs.
- D Iſchiatic notch.
- E Articular ſurface.
- F Linea innominata.

B Os pubis.
- A Great ramus.
- B Small ramus.
- E Spine.
- C Creſt.

C Os iſchii.
- A Tuberoſity.
- B Spine.
- C Ramus.
- O Thyroid hole.

FIG. 2.

The Os Sacrum.

A Articular ſurface above the promontory.
BB Part of the brim of the pelvis.
cccc The original pieces or falſe vertebræ.
DDDD Junctures of the falſe vertebræ.
EEE Holes.
F Articular ſurface towards the os innominatum.
G Articular ſurface towards the os coccygis.

FIG. 3.

The Os Coccygis.

FIG. 4.

The Bones of the Pelvis in their ſituation.

AA Poſterior ſymphyſis.
B Anterior ſymphyſis.
CCC Brim of the pelvis.
DD Acetabula, or cavities of the heads of the thigh bones.
E Arch of the oſſa pubis.

Fig 1

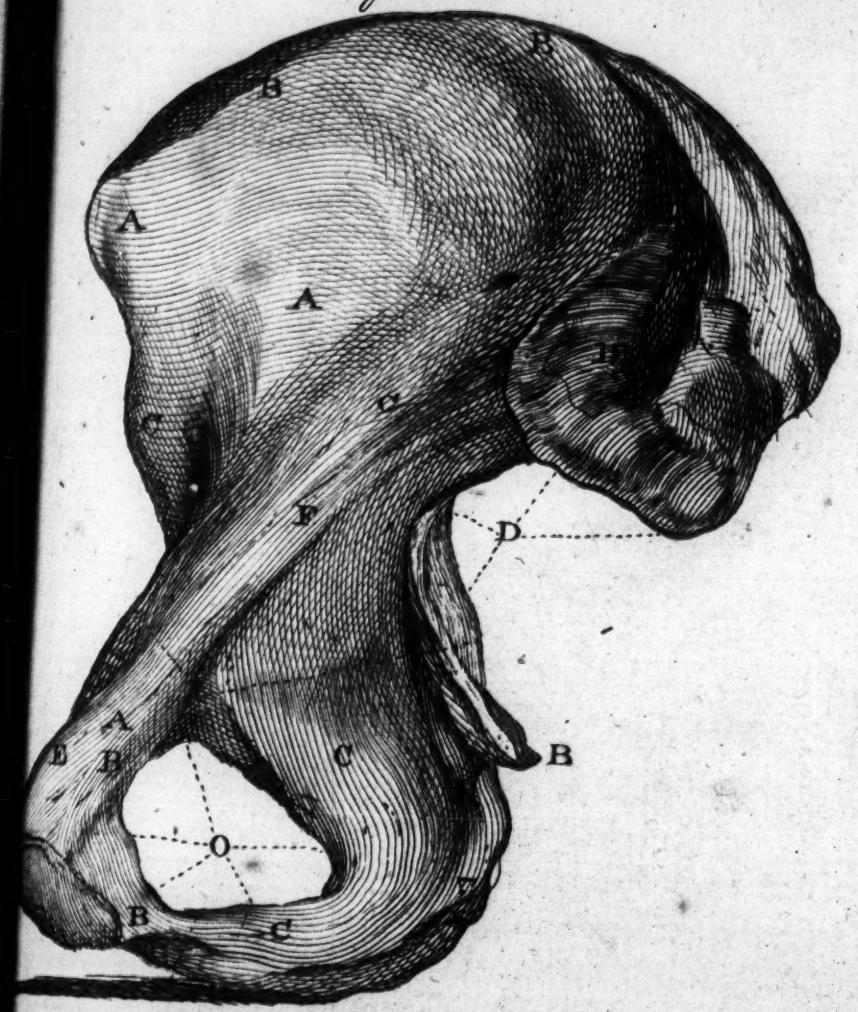


Fig 2

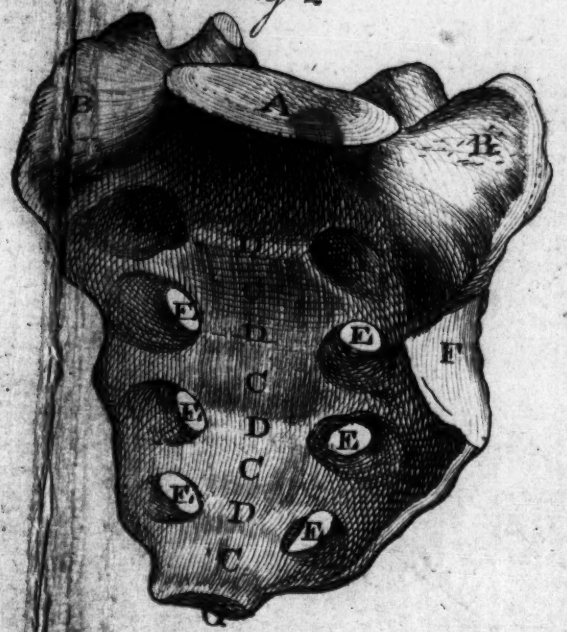
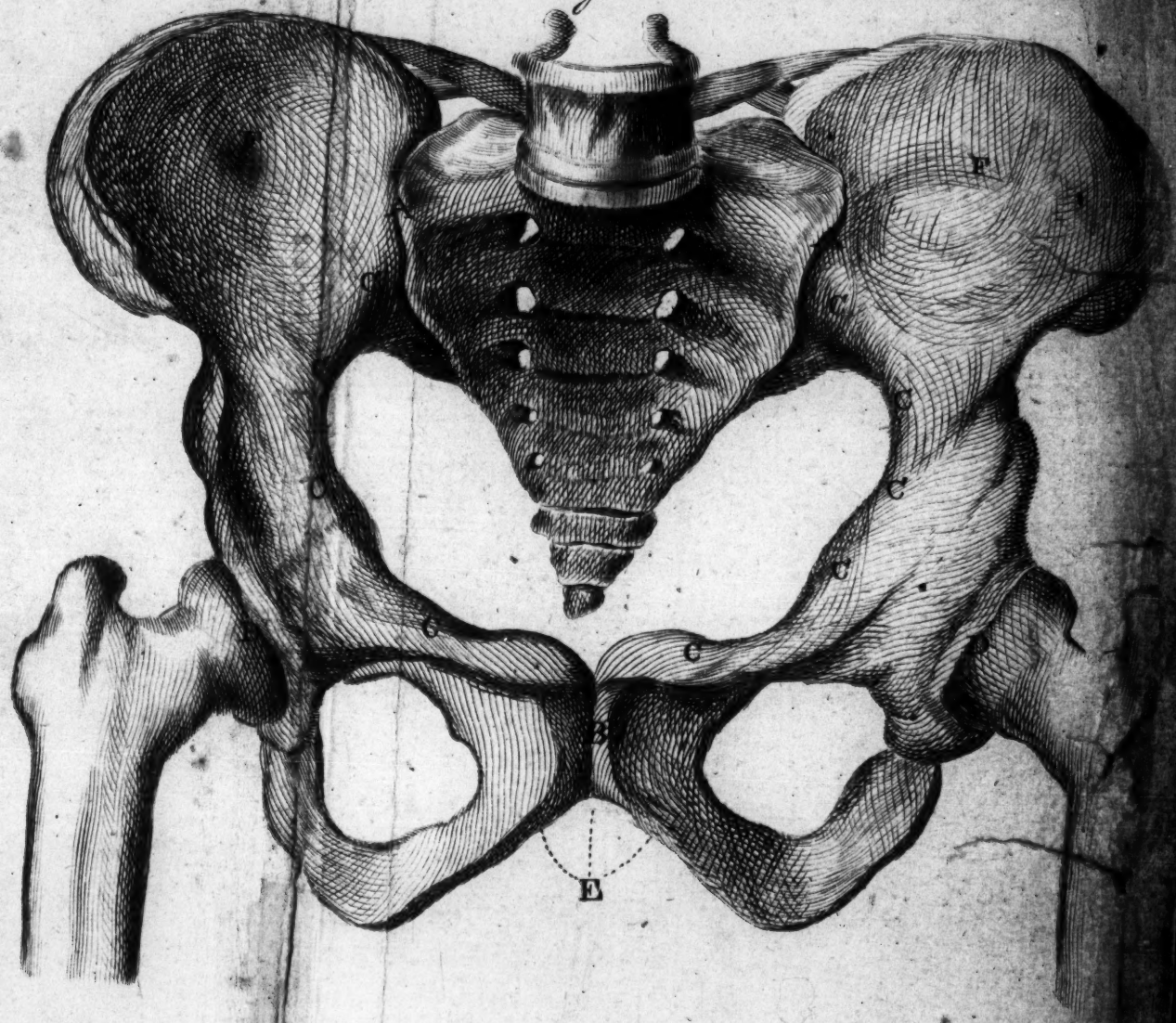
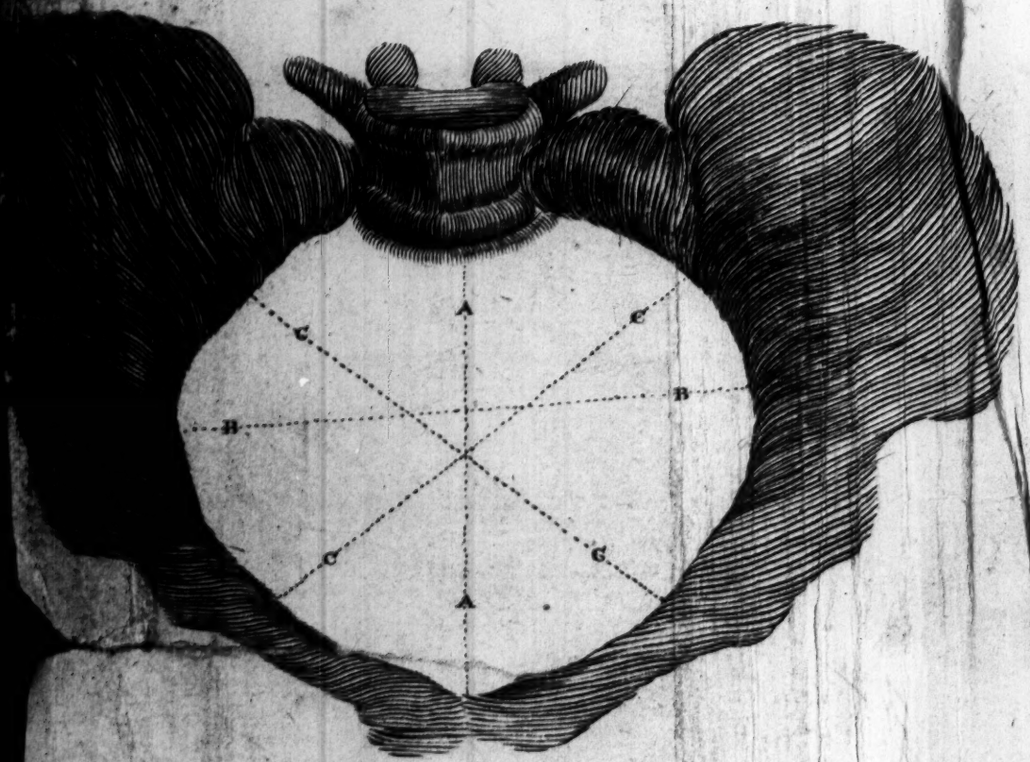


Fig 3



Fig 4




A
C
C
B
B
C
C

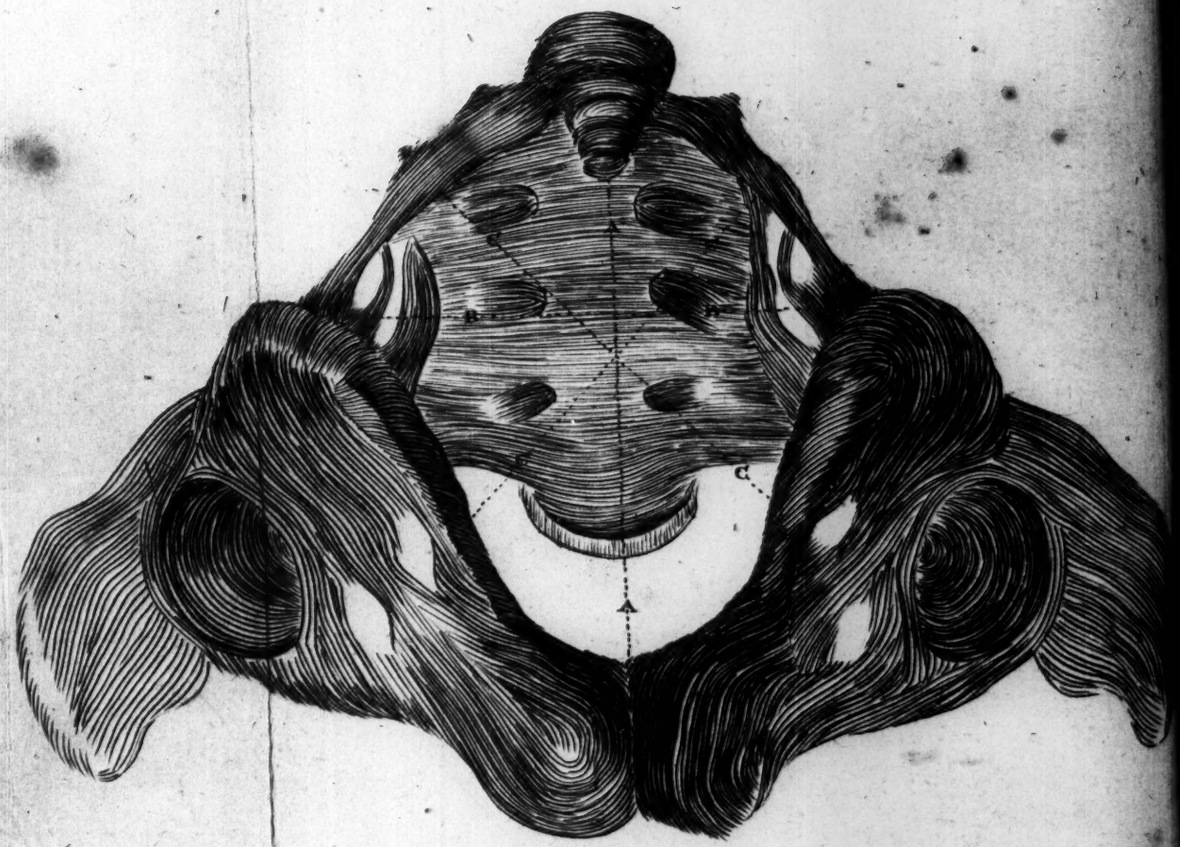

B
C
A

PLATE B.

FIG. 1.

A view of the Brim of the Pelvis.

AA Conjugate or ſhort
BB Tranſverſe or long } diameter.
CC Oblique

FIG. 2.

A view of the Bottom of the Pelvis.

AA Conjugate
BB Tranſverſe } diameter.
CC Oblique

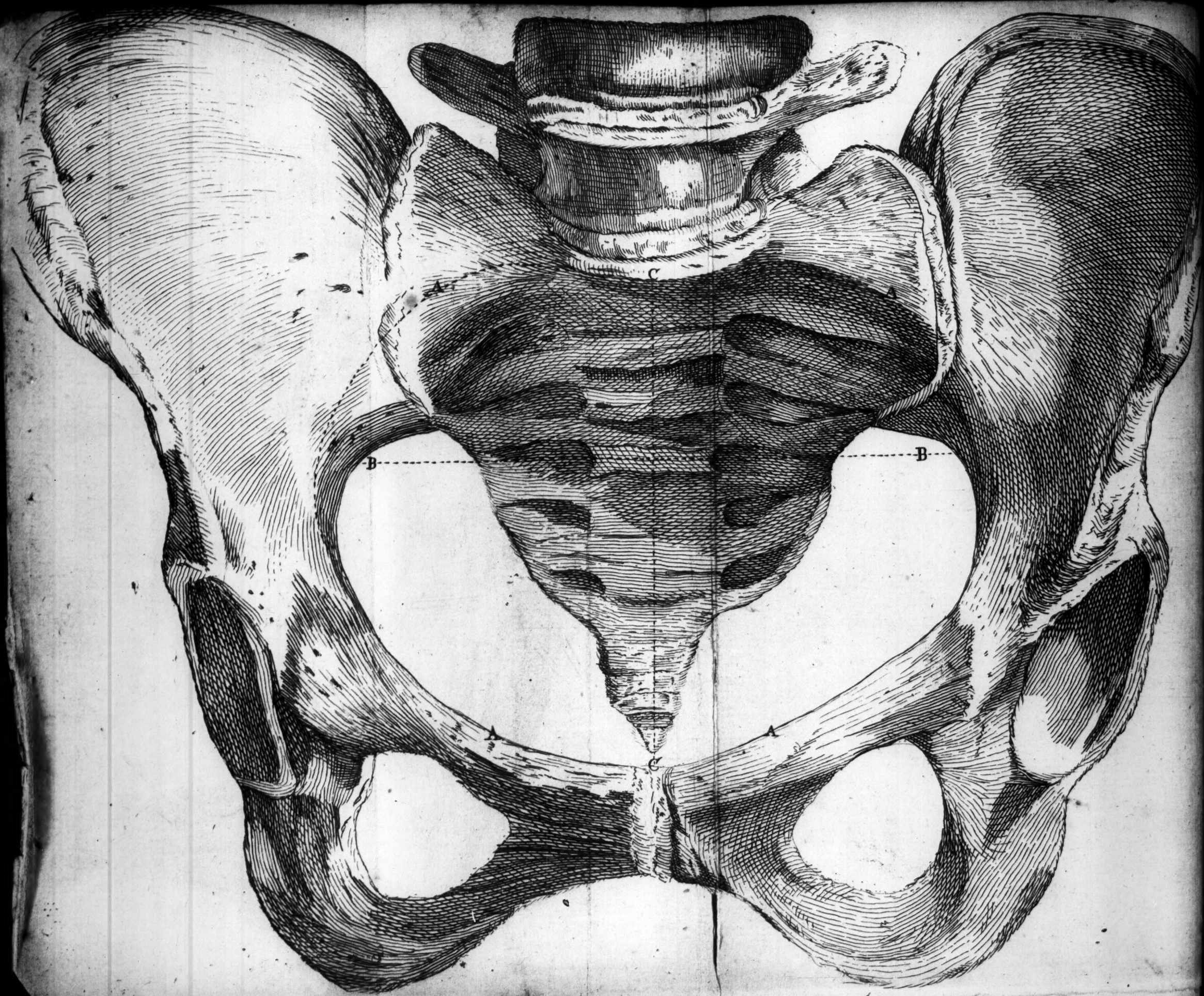

C
A
A
B
B
A
A
C

PLATE BB.

A front view of the full-sized Pelvis.

A A, &c. The brim.
B B Long or transverse diameter.
C C Short diameter.
D Arch of the ossa pubis.

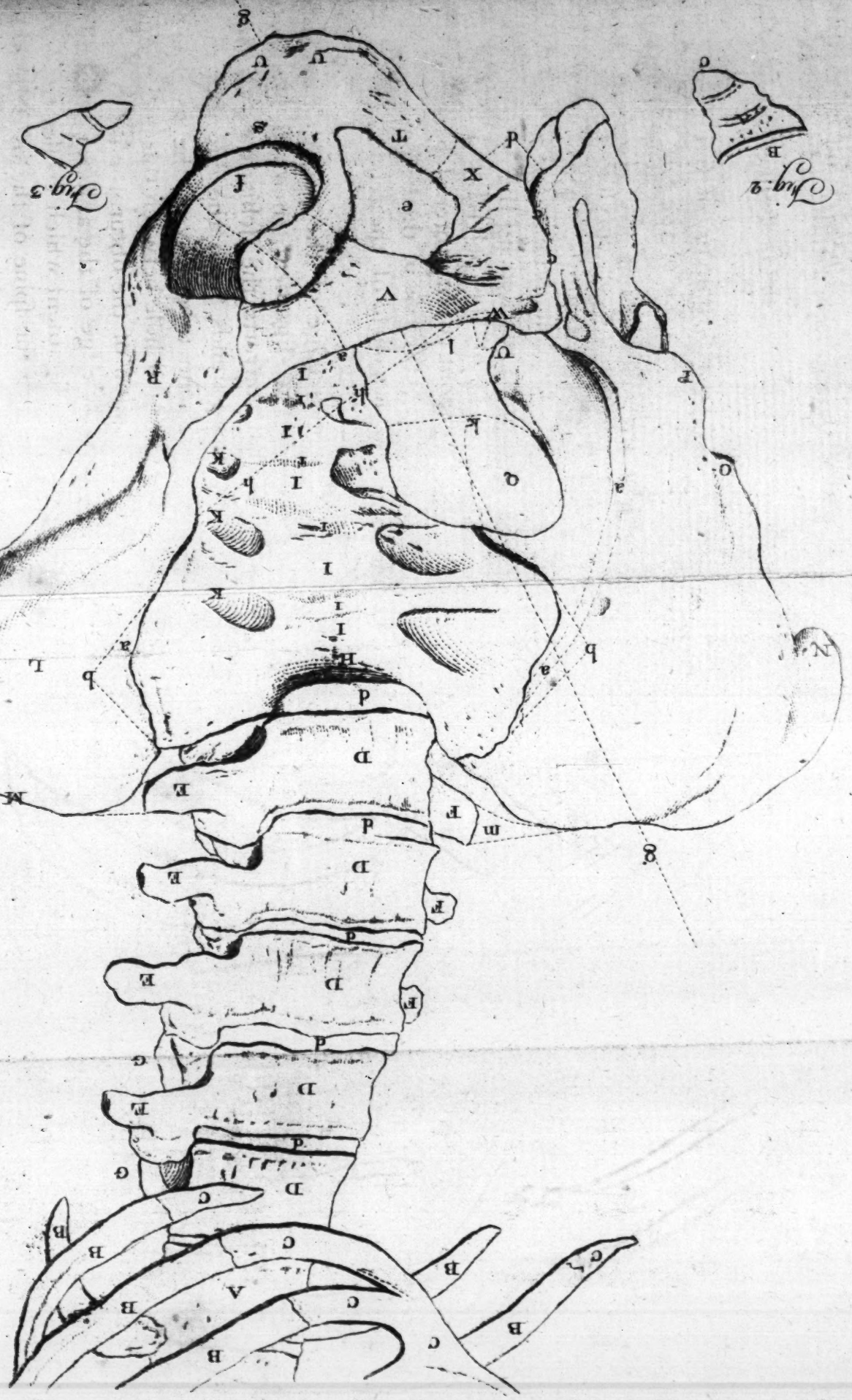

Fig. 3
Fig. 2
Fig. 1

PLATE CC.

FIG. 1.

A view ſomewhat lateral of the pelvis.

Dorſal Vertebræ.

A Body of the loweſt one.

Ribs.

BB, &c. Anterior extremities of the three loweſt ribs of the left, and two loweſt of the right ſide.

cc, &c. Their cartilages.

Lumbar Vertebræ.

D D, &c. Anterior parts of their bodies, that arch conſiderably forwards oppoſite to the loins.

d d d d Intervertebral cartilages.

EEEE Left tranſverſe proceſſes.

FFF Points of the three undermoſt right tranſverſe proceſſes.

GGG Points of three ſpinous proceſſes.

Os Sacrum.

H Middle of its upper ſide, directly above which is the articular ſurface joined with the laſt lumbar vertebra.

IIIII Anterior ſurface of five of the original pieces, called falſe vertebræ, on account of their concretion in the lines iiii, ſo diſpoſed as to form a hollow, named concavity of the os ſacrum.

KKKK Slanting orifices of the ſacral nerves, five on each ſide, which diminiſh as they deſcend, and correſpond to the interſtices of the ſix falſe vertebræ.

Os Ilium.

L Foſſa iliaca, in which the iliacus internus muſcle is ſituated, and which is the under and lateral part of what ſome call the *great pelvis*.

M Spine or creſt.

N Anterior ſuperior ſpinous proceſs.

O Anterior inferior ſpinous proceſs.

P Point in which the os ilium and os pubis join, and to which the rectus femoris muſcle is attached.

Q Iſchiatic notch.

R Part of its outer ſurface or dorſum; a little below which the bone ends by forming a ſhare of the cotyloid cavity or acetabulum.

Os Iſchium.

S External ſurface of its body carrying a part of the acetabulum.

T Ramus, or proceſs that joins with the os pubis.

UU Tuberoſity,

u u Tuberoſity, the loweſt point of its body, and of the trunk of the ſkeleton.

u Spina iſchii of the right ſide.

Os Pubis.

v External ſurface of its body, connected by its anterior end with its fellow, and by its poſterior one completing the acetabulum.

w Its creſt or lip, to which the rectus abdominus muſcle is fixed.

x Ramus, or proceſs that unites with that of the os iſchium, and completes the thyroid hole.

FIG. 2.

A front view of the Os Coccygis, ſhewing that it originally conſiſted of ſeveral pieces.

A Anterior ſurface, ſomewhat hollow.

B Upper ſide that joins with the low angle of the os ſacrum ſo as to augment its concavity.

C Its low angle, which is the inferior point of the ſpine, is ſituated about an inch above the anus, and in the ſtanding attitude is nearly in the ſame horizontal plane with the upper part of the os pubis.

General Circumſtances.

a a a a Brim of the cavity encloſed by the os ſacrum, os coccygis, os ilium, os iſchium,

and os pubis, called *pelvis*, and by ſome *little pelvis*.

b b Poſterior, or ſacro-iliac ſymphyſes of the pelvis.

c Anterior ſymphyſis, or ſymphyſis pubis.

d Angle or arch of the oſſa pubis.

e Thyroid hole.

f Acetabulum, or cotyloid cavity for the head of the os femoris, formed by the three pieces of the os innominatum, in the proportion nearly as marked by the dotted lines.

g g Axis of the pelvis, which forms an angle of about twenty-three degrees with the ſpine or general axis of the body.

h h The courſe of the tendon called Paupart's ligament.

k Upper edge of the poſterior or broad ſacro-iſchiatic ligament, marked by dotted lines, that converts the iſchiatic notch into a hole, and extends from the edge of the os ſacrum to the tuberoſity of the os iſchium, leaving a ſmall hole between this and its ſpine for the tendon of the obturator internus.

l Inferior edge of the anterior or ſmall ſacro-iſchiatic ligament which croſſes the other, and is fixed to the ſpine of the os iſchium.

m m Ligaments between the laſt lumbar vertebra and ſpines of the oſſa ilia.

PLATE

PLATE G.

FIG. 1.

A view of the Brim of the diſtorted Pelvis.

AA Short diameter much diminiſhed.
BB Tranſverſe diameter lengthened.
CC Diagonals proportionally affected.

FIG. 2.

A view of the Brim of the diſtorted Pelvis.

AA Short diameter increaſed.
BB Long diameter ſhortened.
CC Diagonals proportionally affected.

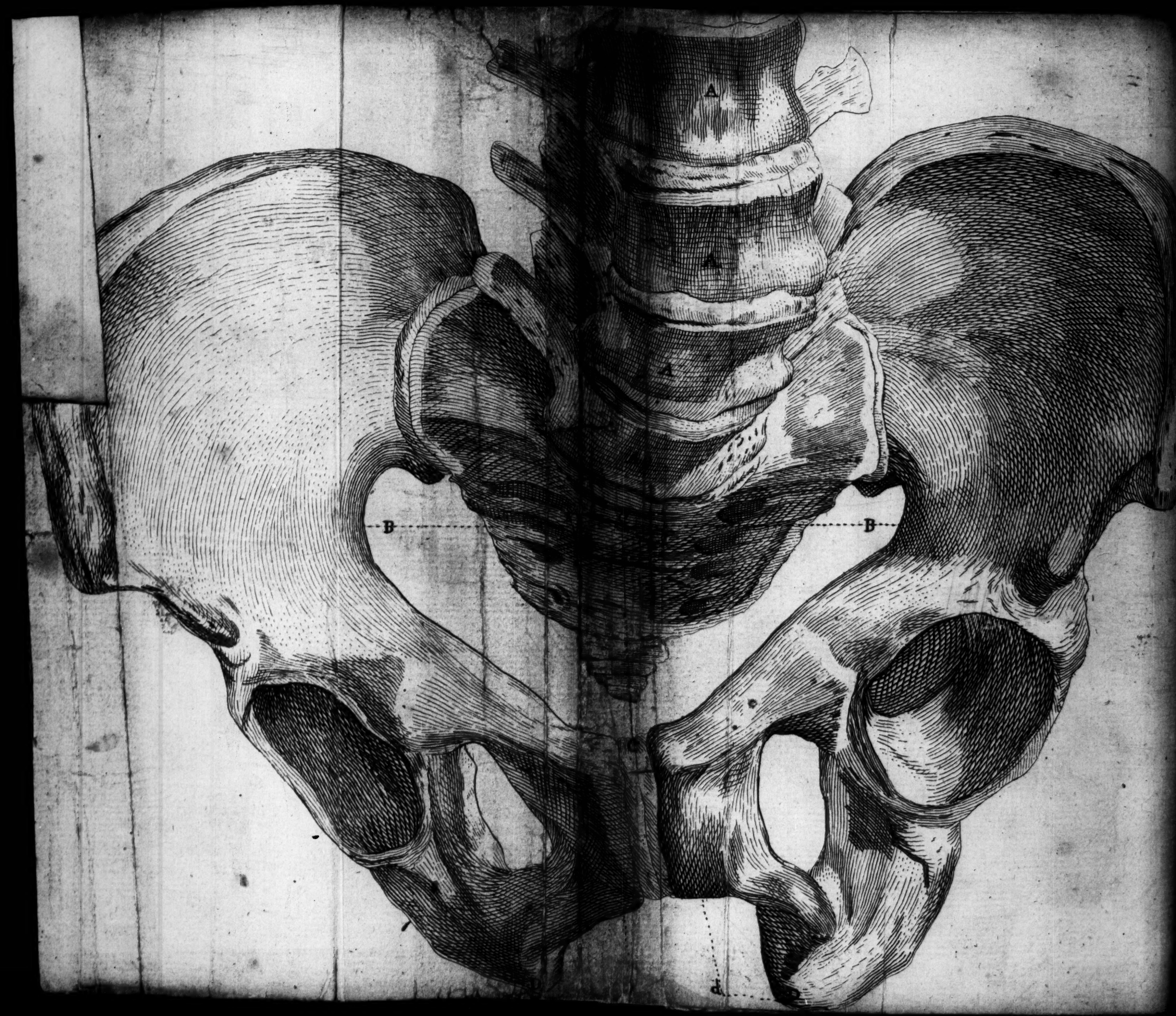

A
A
A
B
B

PLATE CCC.

A front view of the full-ſized diſtorted Pelvis.

AAAA The lumbar vertebræ arching uncommonly forwards, and with the promontory of the os ſacrum diminiſhing the ſhort diameter.

BB Tranſverſe diameter ſomewhat ſhortened.

CC Short diameter much diminiſhed.

DD The tuberoſities of the oſſa iſchia, and rami of the oſſa pubis unduly approximated, ſo as at once to narrow the bottom of the pelvis, and arch of the oſſa pubis.

The approximation is ſometimes as conſiderable as that marked by the dotted lines, dd.

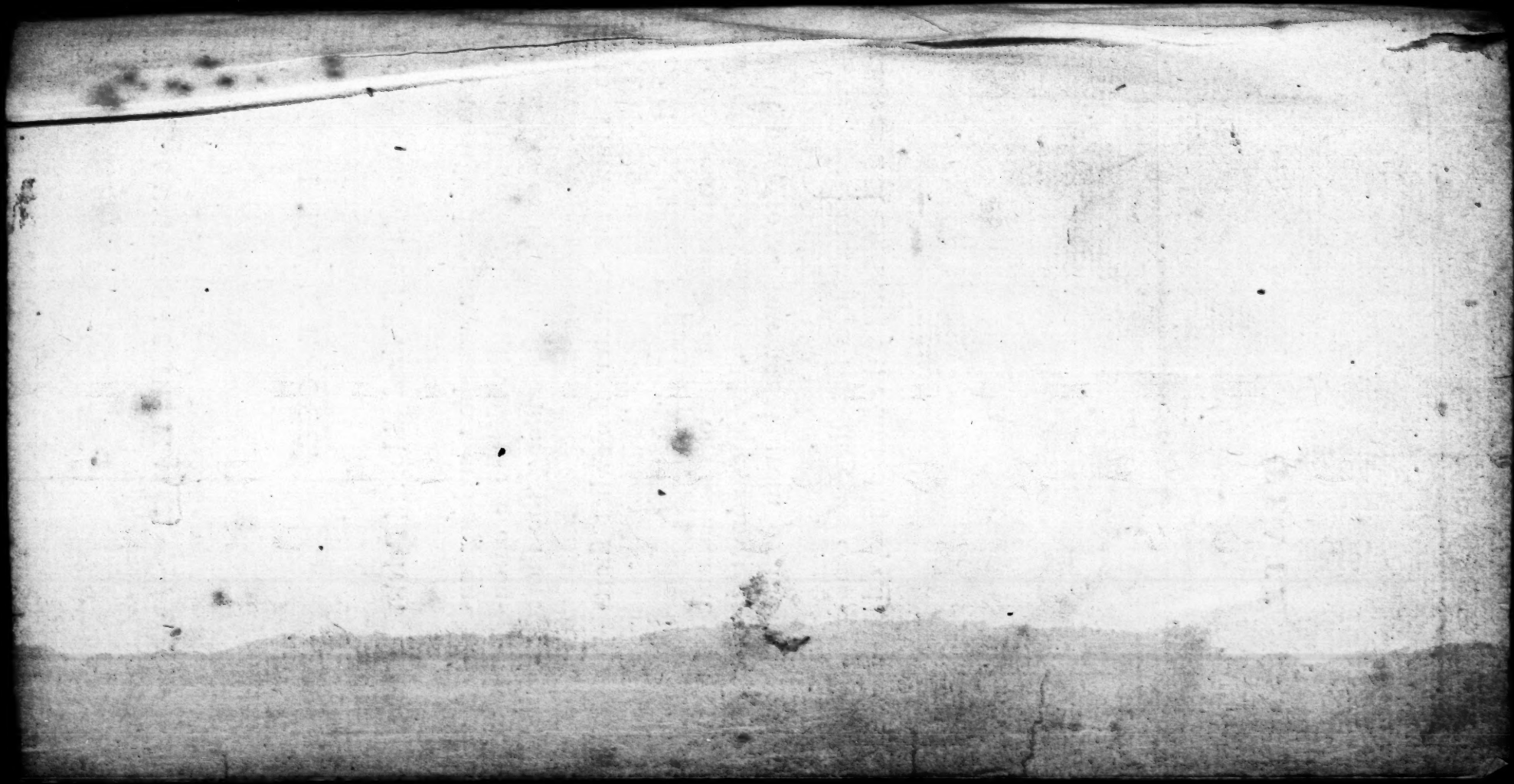


Fig 1

Fig 2

Fig 3

Fig 4

Fig 5

PLATE D.

FIG. 1.

The Uterine Syſtem--by HALLER.

AA Ovaria, the left one enlarged.
BB The Fallopian tubes diſtended.
cc Fringed extremities of the tubes.
DD Body of the uterus cut open.
EE Uterine cavity.
F Os internum.
GG Ligamenta lata.
HH Vagina cut open on its poſterior ſide.
I Urethra.
K Clitoris.
LL Nymphæ.
MM Labia.

FIG. 2.

A view of the Os Internum, and part of the Vagina.

A The Rima.
BB Vagina.

FIG. 3.

A view of the Os Externum.

AA Labia.
B Clitoris.

cc Nymphæ.
D Hymen of a ſemilunar form.

FIG. 4.

A view of the Os Externum.

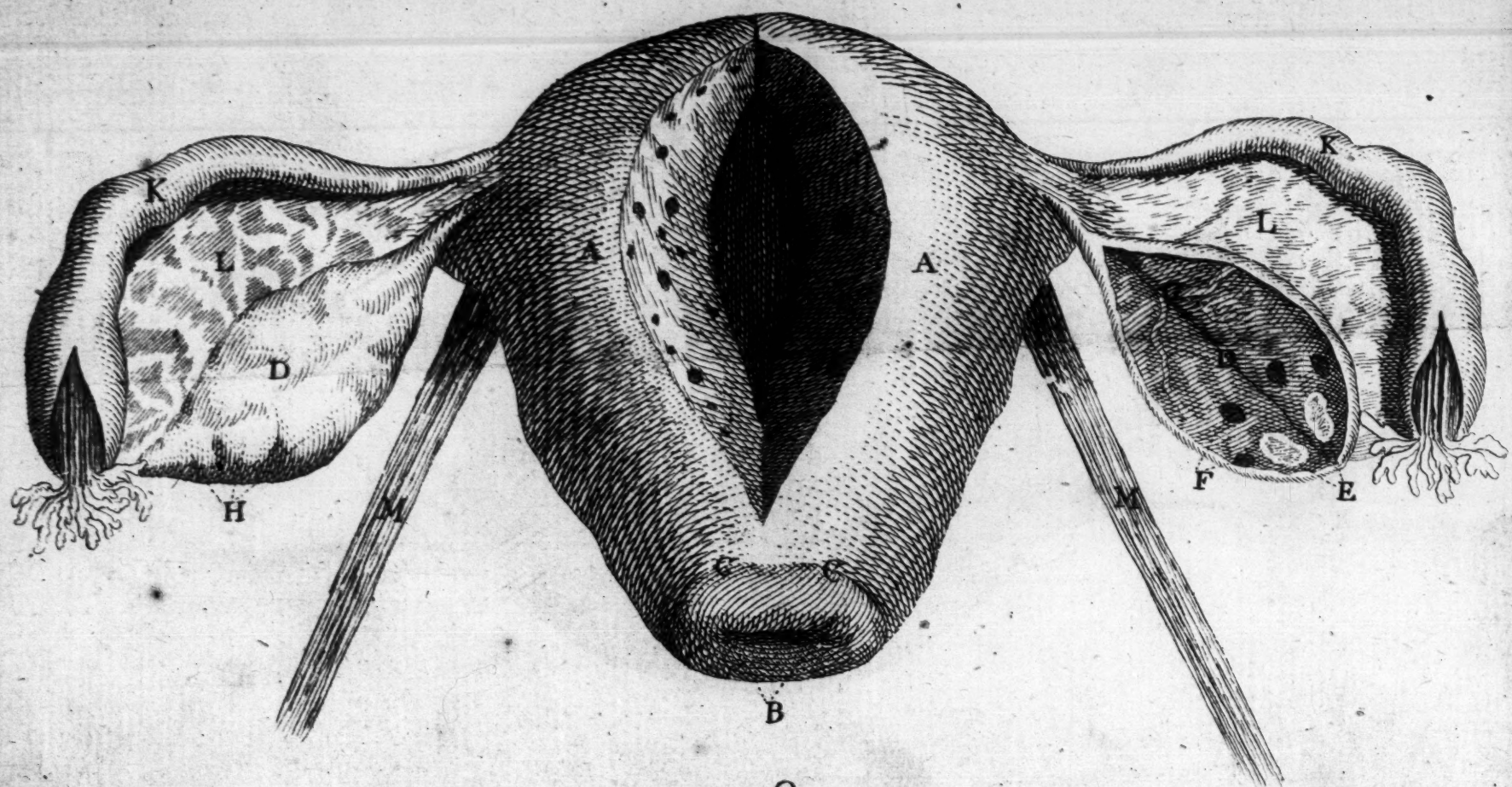
AA Labia.
B Clitoris.
C Urethra.
DDD Hymen of a circular form.

FIG. 5.

A view of the Os Externum.

AA Labia.
B Clitoris.
C Urethra.
D Hymen large and ſemilunar.

1



2

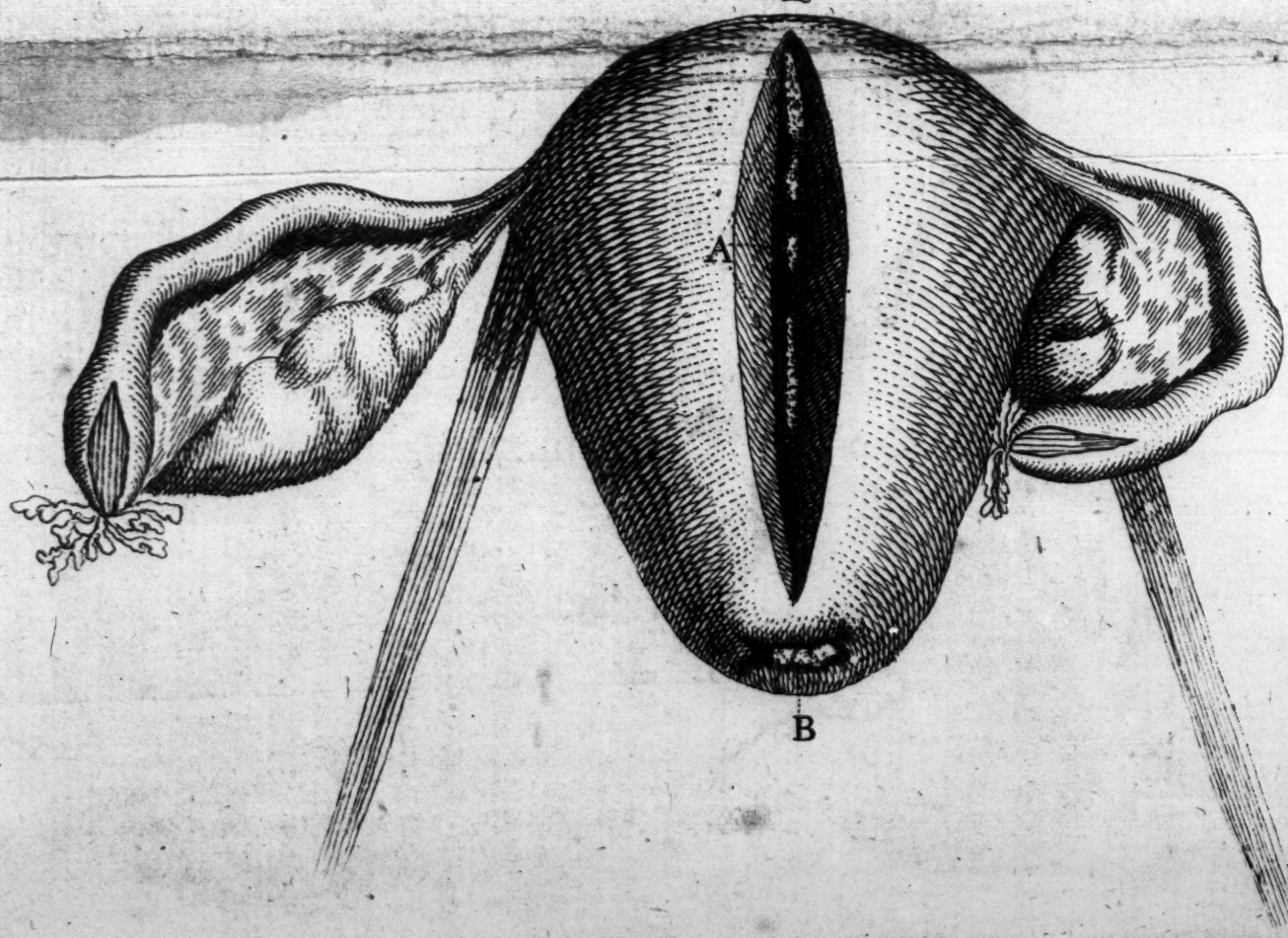


PLATE DD.

FIG. 1.

A view of the Uterus a few days gravid, by RUYSCH.

AA The body of the uterus cut open, ſo that its thickneſs and part of its cavity are ſeen.

B The os internum, or tranſverſe rima between the protuberances, that from ſimilarity have occaſioned it to be called os tincæ.

CC The line to which the vagina adhered.

DD The ovaria, the left one cut open.

E A veſicle enlarged or impregnated, (ovum fœcundatum).

F Veſicles not enlarged (ovula non fœcundata).

G Blood veſſels running in the cellular or common texture.

H Prominences cauſed by the contained veſicles or ova.

II The ligaments of the ovaria.

KK The Fallopian tubes ſlit open near their fimbriated extremities.

LL Parts of the ligamenta lata uteri.

MM Parts of the ligamenta rotunda uteri.

EXPLANATION OF THE PLATES.

FIG. 2.

A view of a Uterus taken from a woman who was killed a few hours after coition--- by RUYSCH.

The cavity of the uterus and its tubes were diſcovered filled with the male ſeminal fluid.

A The ſemen in the uterine cavity.

B The ſame matter appearing at the os internum.

PLATE

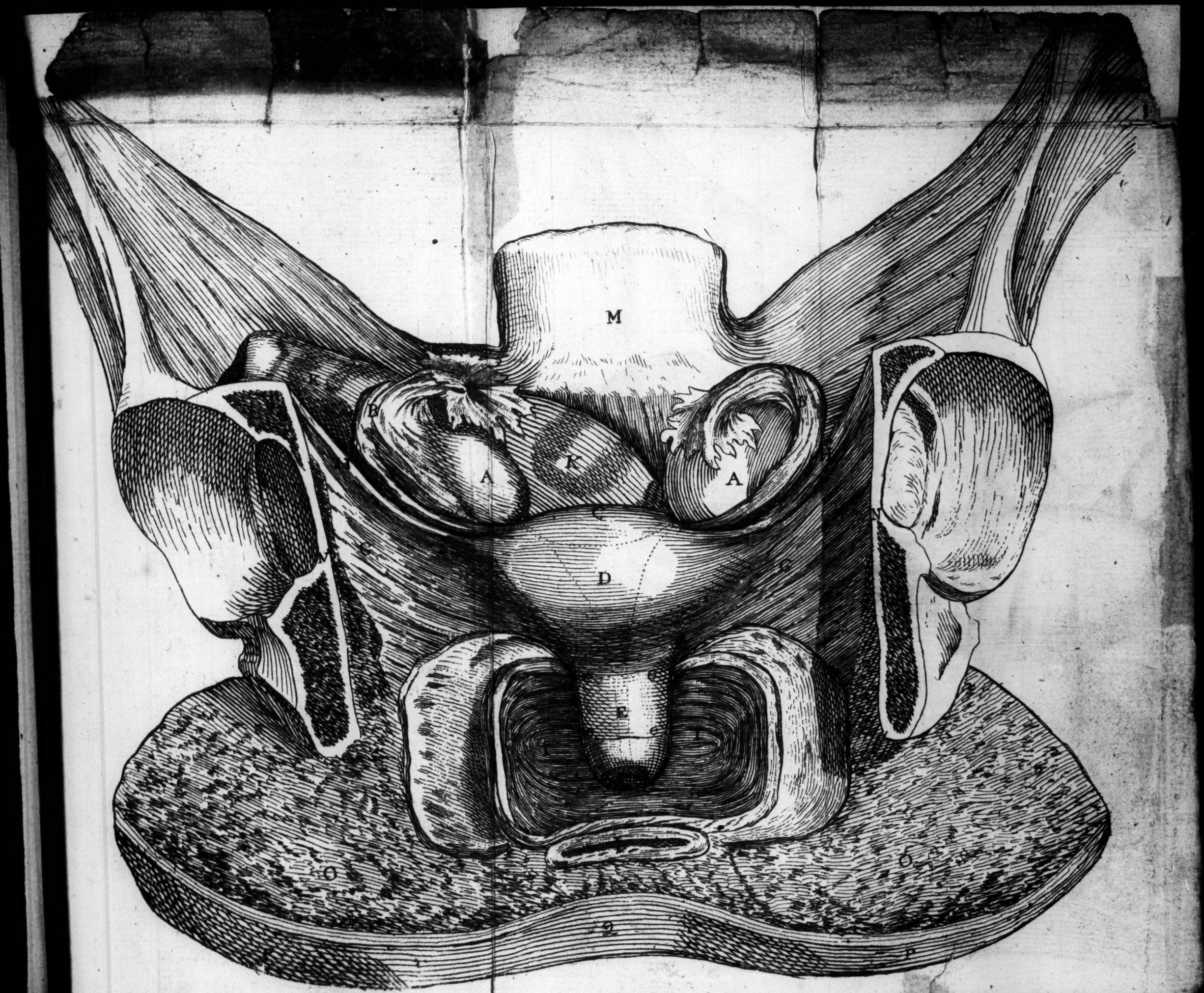

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PLATE DDD.

A view of the Uterine Syſtem, in conſequence of a tranſverſe and lateral ſection of the Pelvis---by SMELLIE.

AA The ovaria.

BB The Fallopian tubes; the fimbriated extremity of the left one is applied to the corresponding ovarium, while that of the right one is turned forwards to ſhew its orifice.

C The uterus, its fundus or bottom.

D Its corpus or body.

E Its cervix or contracted portion.

eeee The ſpace from which the cervix of the bladder of urine has been cut off.

F The os internum.

The dotted lines ſhew the form, extent, and ſituation of the uterine cavity.

GG The ligamenta lata.

HH The ligamenta rotunda.

II The vagina cut open.

KK The ſuperior part of the rectum.

L The inferior part.

M The laſt lumbar vertebra.

NN The oſſa innominata at the place of ſection.

OO Cellular ſubſtance between the integuments and muſcles.

PP The integuments of the nates.

Q The region of the os coccygis.

PLATE

PLATE DDDD.

FIG. I.

A view of the Gravid Uterus in ſitu in the fourth or fifth month, cut vertically and tranſverſely---by SMELLIE.

AA The oſſa innominata cut as repreſented in the former plate.

BBBB The poſterior ſegment of the uterus, containing numerous veſſels.

C The fœtus with its vertex preſented or downwards.

EE Accidental flexions of the umbilical chord.

F The placenta, its concave ſurface covered by the chorion and amnios.

GG The membranes adhering to the uterus, from which the light waved lines, g g g g, repreſent their edges as ſomewhat detached.

H The cervix uteri ſhortened, from which the bladder has been diſſected.

I The os internum.

K The ligamenta lata.

LL The vagina cut open on the fore part.

MM Cellular ſubſtance.

NN The integuments of the nates.

O The anus.

FIG.

PLATE DDDD.

FIG. I.

A view of the Gravid Uterus in ſitu in the fourth or fifth month, cut vertically and tranſverſely---by SMELLIE.

AA The oſſa innominata cut as repreſented in the former plate.

BBBB The poſterior ſegment of the uterus, containing numerous veſſels.

C The fœtus with its vertex preſented or downwards.

EE Accidental flexions of the umbilical chord.

F The placenta, its concave ſurface covered by the chorion and amnios.

GG The membranes adhering to the uterus, from which the light waved lines, g g g g, repreſent their edges as ſomewhat detached.

H The cervix uteri ſhortened, from which the bladder has been diſſected.

I The os internum.

K The ligamenta lata.

LL The vagina cut open on the fore part.

MM Cellular ſubſtance.

NN The integuments of the nates.

O The anus.

FIG.

FIG. 2.

A view of the gravid Uterus in the ſecond month, cut vertically and tranſverſely; in which the placenta and membranes are diſtinctly ſeen--by SMELLIE.

The cervix uteri is not ſhortened.

FIG. 3.

A view of the gravid Uterus in the ſecond month, cut vertically and tranſverſely.--- The fœtus and its parts are more evolved than in the former figure--by SMELLIE.

The cervix uteri is conſiderably ſhortened.

PLATE


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PLATE E.

A vertical ſection of the Uterus, containing the child at the commencement of parturition, as large as the life—by ALBINUS.

AA The ſubſtance of the uterus, exhibiting the numerous orifices of the cut veſſels of various ſizes.

A The umbilical chord about the child's neck, the head preſented, and the limbs folded and croſſing one another,

B The chord appearing below the arms and diſſected through its remainder.

cccc Umbilical arteries.

DDD Umbilical vein lying between the arteries.

EEE Placenta, made up of the umbilical veſſels, and adhering to the fundus uteri.

GGG The amnios and its continuity with the cuticle of the child's body.

FFF The chorion in contact with the uterine ſurface, and interior to the placenta, and its continuity with the true ſkin of the child's body.

Theſe circumſtances are not repreſented by ALBINUS.

The ſpace between the child's body and amnios is occupied by the liquor amnii or waters.

PP Os internum ſomewhat dilated.

cc Part of the vagina.

PLATE EE.

A view of a tranſverſe ſection of the Uterus near the term of parturition, containing twins—from SMELLIE.

AAAA A ſegment of the uterus, in ſitu, exexhibiting its numerous veſſels.

B The os internum and a part of the chorion protruded through it.

C The undermoſt fœtus with the head preſented to the os internum, which is conſiderably dilated, the cervix uteri being entirely obliterated.

The face is to the ſide of the pelvis, and the vertex ſomewhat within the brim.

DD The umbilical chord ſurrounding the child's body.

E The placenta adhering near to the fundus uteri.

FFFF A portion of the amnios.

G The uppermoſt fœtus with the feet downwards, or præternaturally ſituated.

HH The umbilical chord ſurrounding the neck and trunk.

I The placenta adhering near to the fundus uteri and to that of the other.

KK The amnios.

LL, &c. The cut edges of the adjacent membranes, which form a common and complete partition between the cavities of the amnii, their liquors, &c.

MM The cut ossa innominata.

NN The vagina cut open.

O Os coccygis.

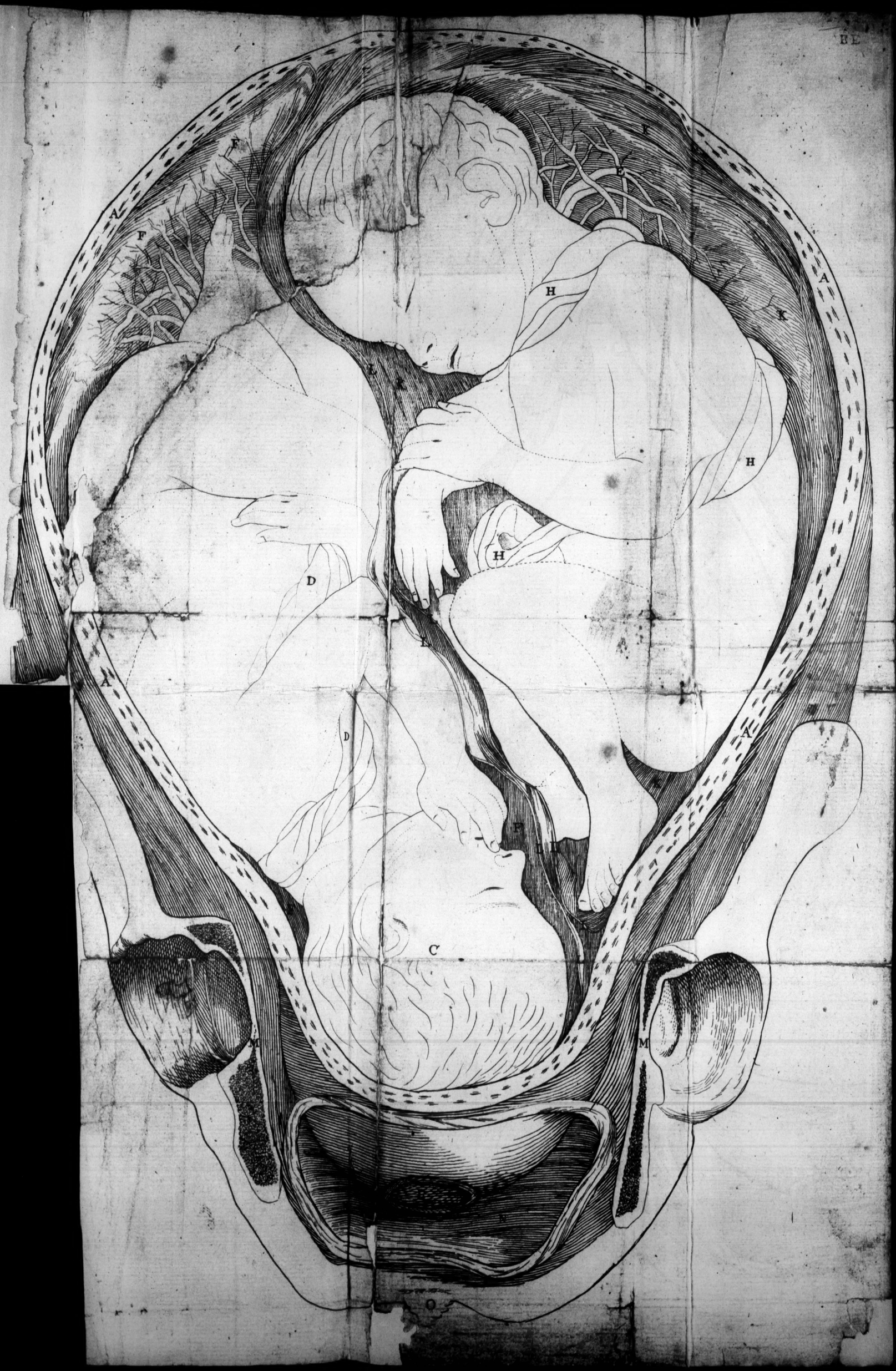
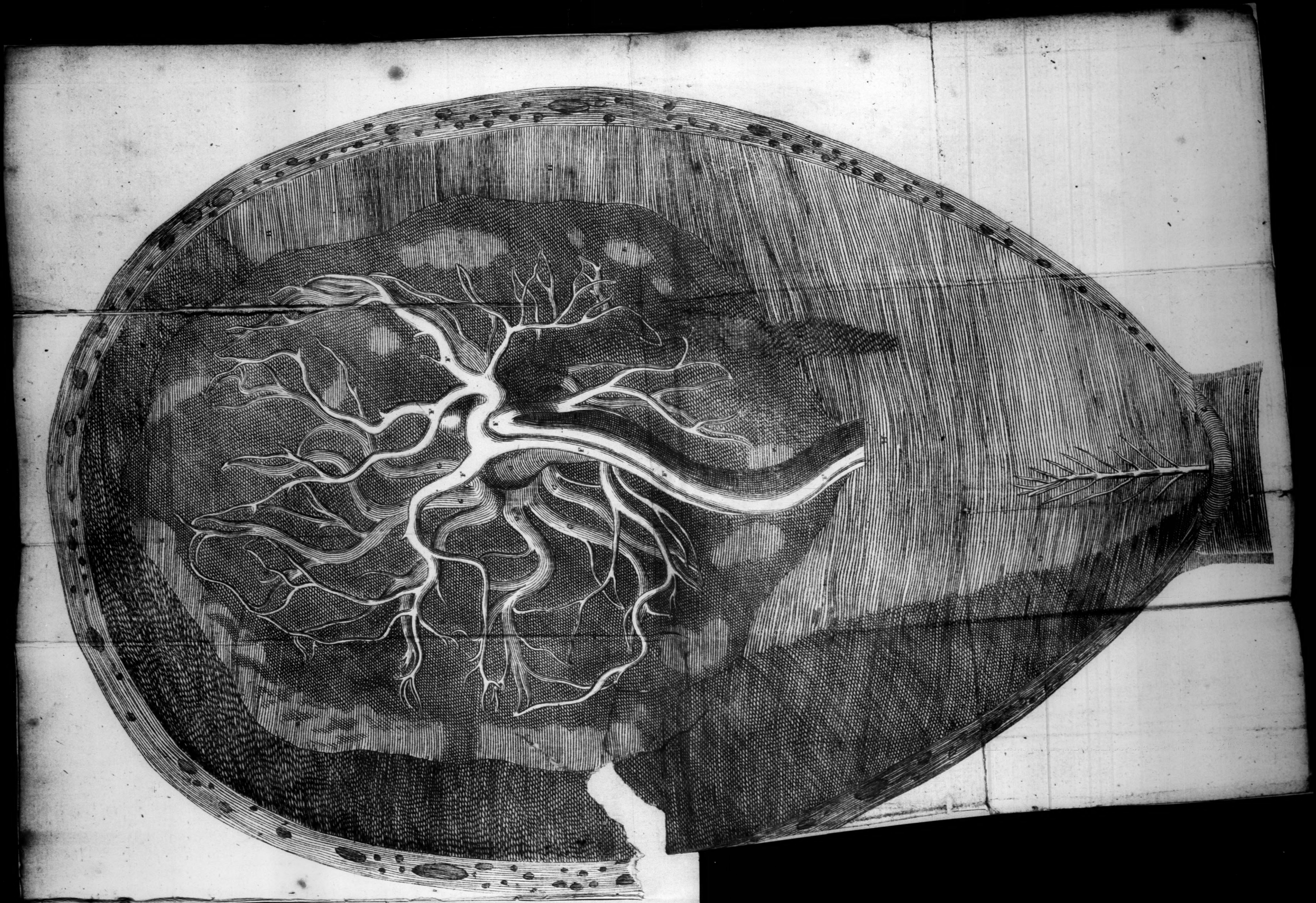

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PLATE F.

A vertical ſection of the Uterus at the commencement of parturition, with the placenta adhering, as large as life, by ALBINUS.

AAA Subſtance of the uterus.
BBB Uterine ſurface.
CC Os internum ſomewhat dilated.
DD Portion of the vagina.
EEEE Placenta adhering to the ſide or cavity of the uterus.
FFFF Umbilical veins, beautifully ramifying on the ſurface of the placenta which regards the child.
GGGG Umbilical veins, likewiſe ramified.
H Cut extremity of the umbilical chord.



1

2

A

B

B

C

C

D

D

E

E

PLATE FF.

FIG. 1.

A view of the veſſels that form the Umbilical Chord, &c.---by BIDLOO.

A The umbilical ring or opening in the tendons of the abdominal muſcles about the middle of the linea alba.

B Part of the umbilical chord drawn upwards and tied by a thread to a nail.

CC The convex ſurface of the liver.

DD The inteſtines convoluted.

E The bladder of urine.

FF The internal iliac or hypogaſtric arteries, reflected on each ſide of the bladder, and running to the umbilical ring to become umbilical arteries. They lie without the peritonæum.

G The umbilical vein in its courſe from the umbilicus to the notch and canal of the liver, and to the ſinus venæ portarum, from which the canalis venoſus runs backwards to the vena cava. This is entirely without the peritonæum, and partly involved in the duplicature of it, which is called the broad or ſuſpenſory ligament of the liver, that divides the lobes.

H The urachus, extended from the fundus of the bladder to the umbilicus, between the two arteries.

FIG. 2.

A view of the Heart of the Fœtus, diſſected ſo as to ſhew,

A The ſeptum or partition of the auricles.

B The foramen ovale, with its valve nearly filling it.

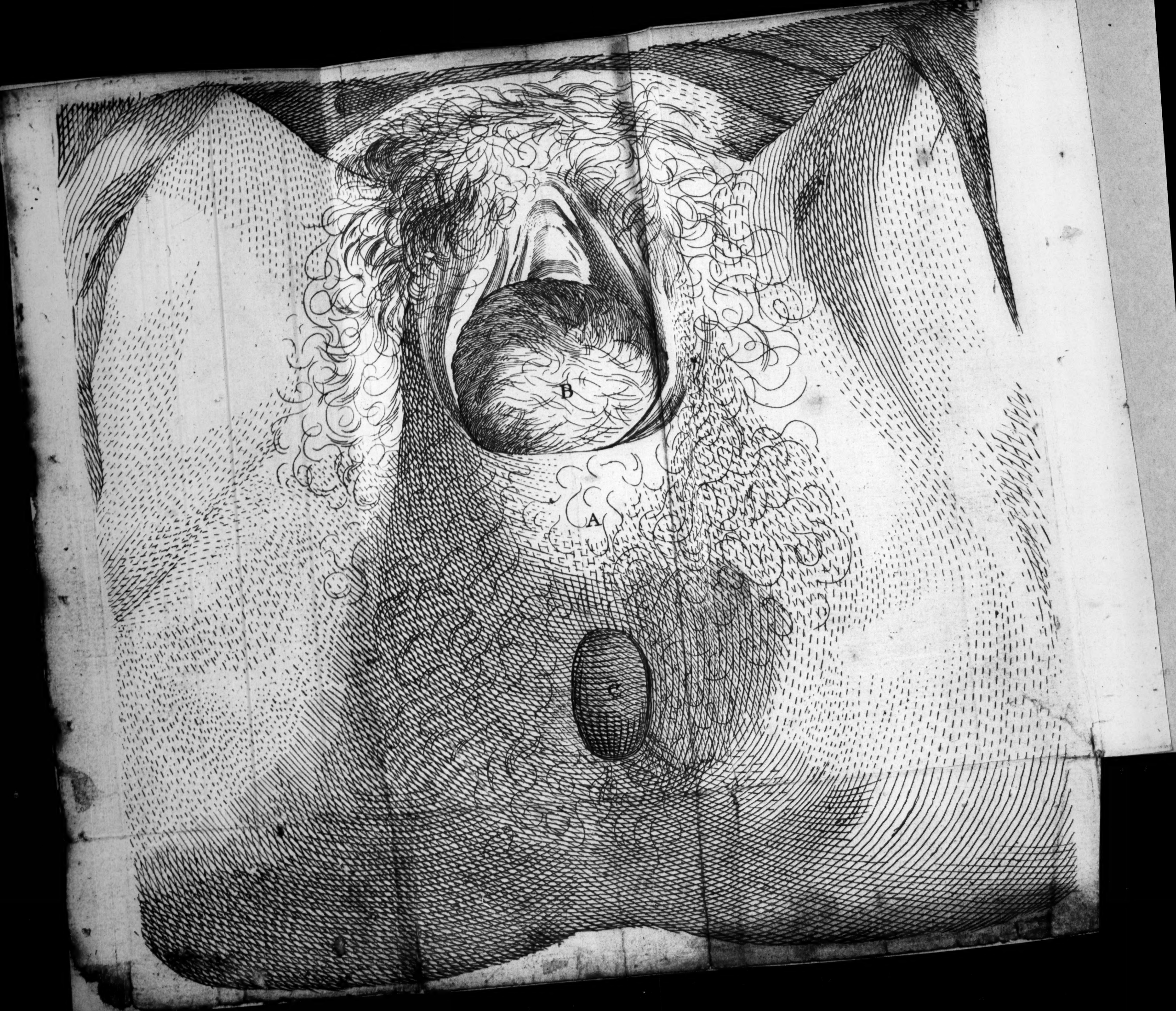

B
A
C

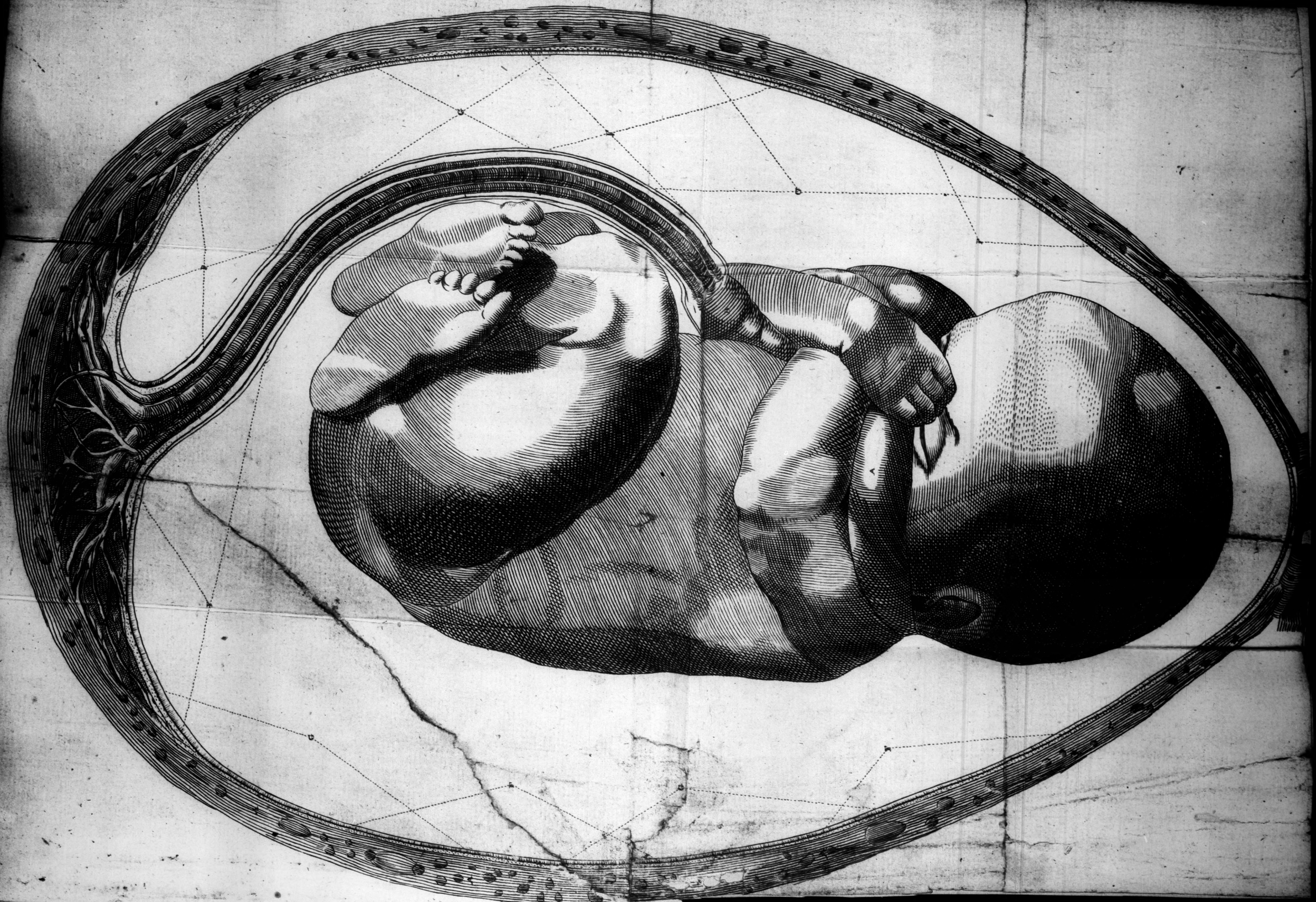
PLATE FFF.

A view of the Os Externum and vicinity, when parturition is nearly completed.

A The perinæum much diſtended.

B The vertex ſomewhat protruded through the os externum, which is proportionally dilated in a backward and downward direction.

C The anus opened, and part of the rectum apparent.



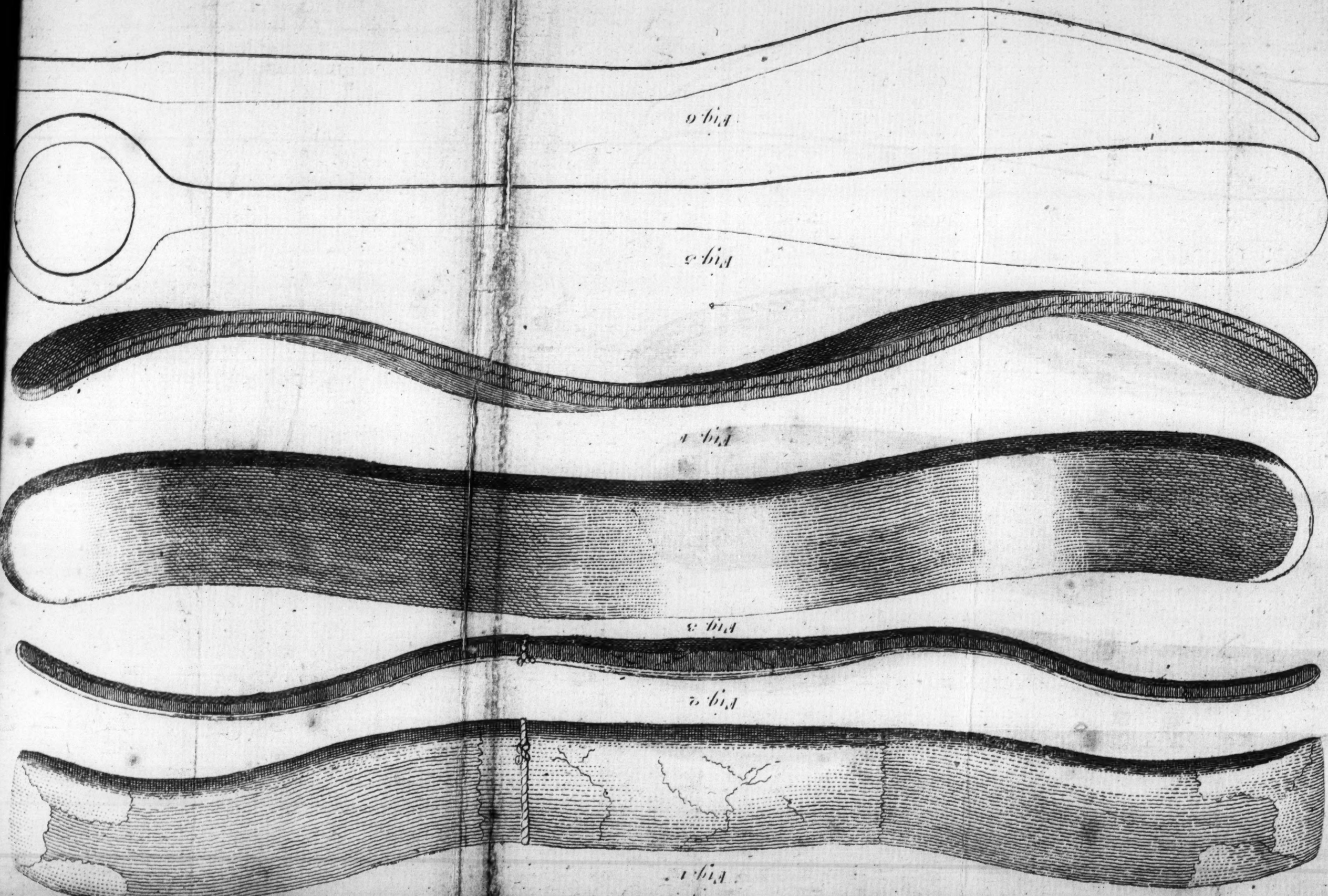


Fig. 6

Fig. 5

Fig. 4

Fig. 3

Fig. 2

Fig. 1

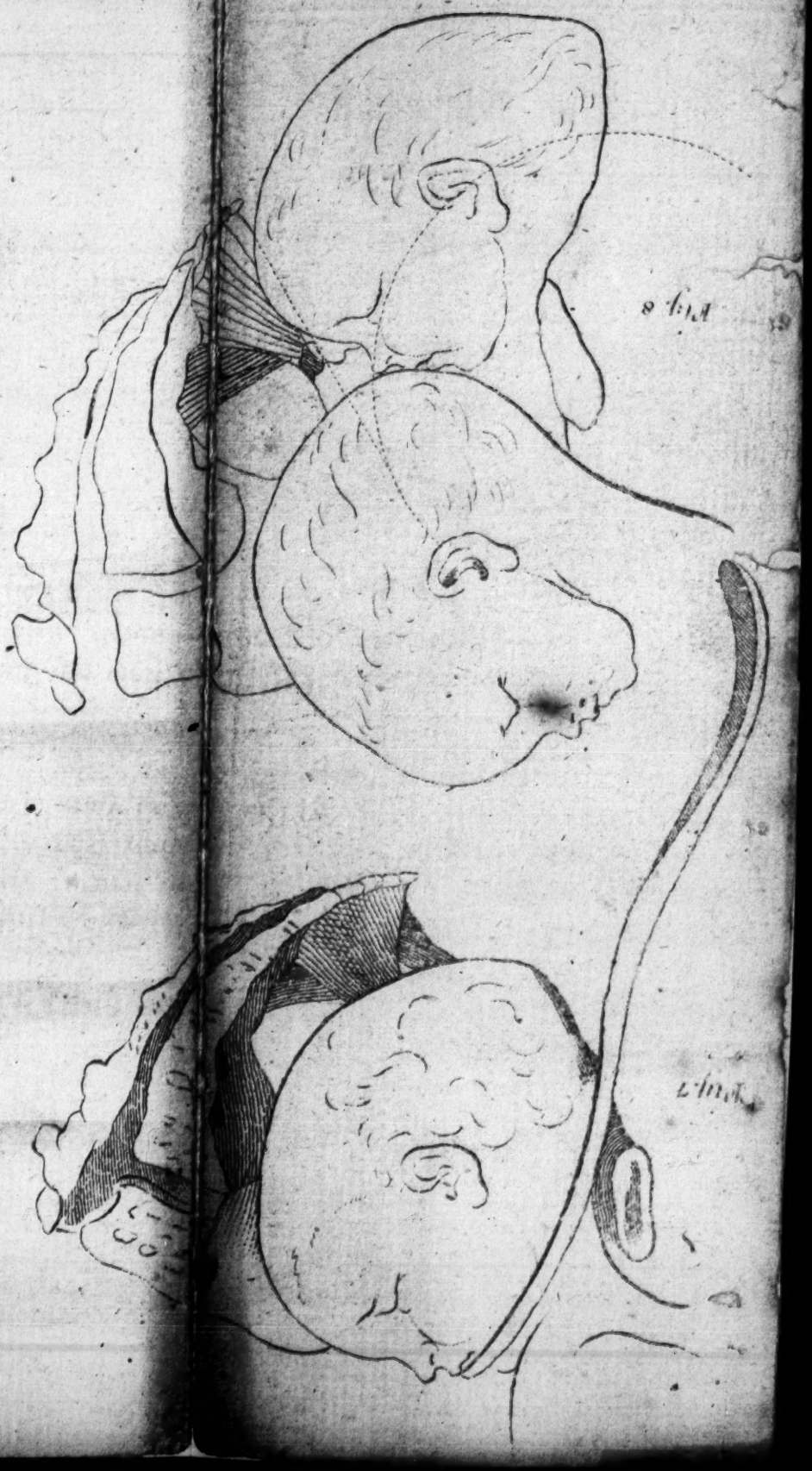


Fig. 8

Fig. 7

PLATE N.

FIG. 1.

A view of the Lever of ROONHYSE, covered with pieces of adhesive plaister and tied on with a thread in two places.

AA The two curvatures to take hold of the head, according to its size.

FIG. 2.

A side view of the same Lever, chiefly intended to shew the quantity of the curvatures, and that the one is longer than the other.

FIG. 3.

A view of the Lever of ROONHYSE, somewhat different from that represented in the former figures, covered with shamoy or the like.

FIG. 4.

A side view of the lever as represented by fig. 3, shewing the seam that fixes its covering.

FIG. 5.

A representation of a Spatula which was occasionally heated and curved, to answer the purpose of the lever of ROONHYSE.

FIG. 6.

A ſide view of the Spatula, to ſhew its curvature.

FIG. 7.

A vertical and lateral ſection of the Pelvis, containing the head of the fœtus, with the face turned to the os ſacrum, or at leaſt upwards, and the manner in which the lever may be applied.

FIG. 8.

The ſame view of the Pelvis and head of the fœtus, denoting the progreſs and path of the latter.

1

B

A

C

D

D

2

B

A

C

d

d

D

D

3

4

A

B

5

6

a

b

b

NN

PLATE NN.

FIG. 1.

A view of the Forceps of LEVRET.

AA The double curvature of the blades, accomodated ſomewhat to the figure of the pelvis.

B The points diſtant from one another, by which the inſtrument is leſs apt to bruiſe the child than when it has touching points.

C A lock, which, when drawn off, allows the blades to be taken aſunder.

DD The curved handles, which may be occaſionally uſed as blunt hooks.

FIG. 2.

A view of SMELLIE's Forceps.

AA The blades with the lateral curvature only.

B The points in contact with one another. The blades are covered with ſoft leather, &c.

C The lock is of the common form. The blades fall mutually into ſquare notches.

DD The handles, maſſy and contracted at d d, are kept together by a fillet fixed there after the head is properly intercepted.

FIG.

Fig. 3.

A view of a Blade of Smellie's Forceps, on the ſide that reſpects its fellow.

Fig. 4.

A view of the Forceps as commonly made in this country at preſent. It nearly approaches to the form of Levret's, excepting in the lock, which is that of Smellie's.

Additions.

A A ſcrew-nail with a ball-head, fixed in a plate on the outſide of the one handle---a hole on each ſide allows it to be occaſionally ſhifted.

B A deep canula or groove, open at the ends and ſide ſo as to admit the ball-head of the ſcrew-nail of the other handle, and to allow it to ſlide eaſily from place to place.

Theſe do not interfere with the ordinary application of the inſtrument; their intention will be diſcovered from the next figure.

C A long finger-ſcrew-nail, flat on one ſide and divided into parts; this paſſes through the one handle ſo as touch the ſurface of the other.

This

This has two important uſes.

1 To protect the child's head from being unduly ſqueezed either by the reaction of the mother's parts, or by the preſſure of the operator's hand; by connecting its point with the handle it touches at preſent (which could eaſily be done) it might ſuperſede the fillet.

2 To indicate the diſtance of the blades from one another, and conſequently the ſize of the intercepted head; or in other words to convert the inſtrument into a *Cephalometer*; for the dotted lines between the blades muſt always bear a determinate proportion to the part of the nail that appears between the handles, and the ſcale of parts ſhews the quantity.

Fig. 5.

A view of the Forceps repreſented in the former figure, with the blades inverted in ſuch ſort as to be locked by the ball nail and ſlit canula.

The advantages of this new lock are,

1 To facilitate the locking when the blades cannot be exactly oppoſed to one another; becauſe it allows a ſmall degree of circular motion along the ſurface of the head to one or both blades.

2 To

2 To exclude all riſk of intercepting the mother's parts, which is ſo readily and frequently done by the common locks.

3 To allow a blade to change place upwards or downwards ; a circumſtance highly uſeful when the blades are applied on diſſimilar ſurfaces.

4 To ſuperſede the fillet.

This improvement does not interfere with the purpoſes of the finger-ſcrew-nail ; which is occaſionally changed from one handle to the other.

This alteration is not expenſive, may be made in the common forceps, and certainly extends its utility.

Fig. 6.

A view of the Forceps with the graduated lock which requires the fillet, as repreſented by the dotted lines.

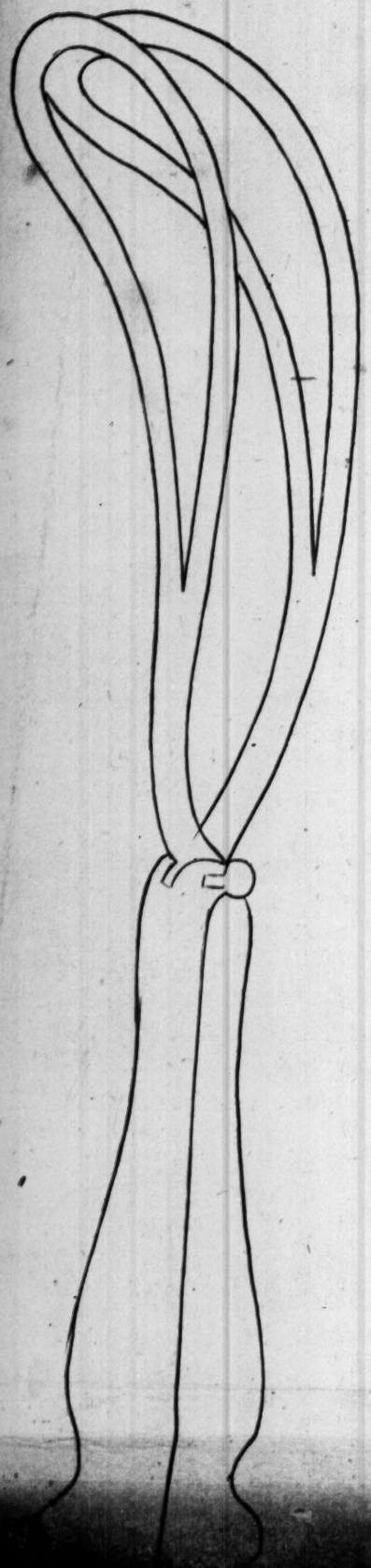
It is intended that the middle finger of the hand employed in managing the forceps ſhall go between the blades, above the lock a a, while the fore aud ring-fingers reſt on the adjacent blunt knobs b b. By this diſpoſition the mother's parts are fully protected, becauſe the fingers are interpoſed and the other hand being diſengaged can either ſupport the perinæum, or give other requiſite aſſiſtance.

I think

I think in this way every forceps ſhould be held.

I pointed out the uſe of the ſcrew in the handles to Archibald Young, inſtrument-maker in this city, who brought me a forceps he was making for a DOCTOR EVANS of Shropſhire, and was not a little ſurprized to find that that gentleman had publiſhed it as his invention ſoon afterwards.

1



3

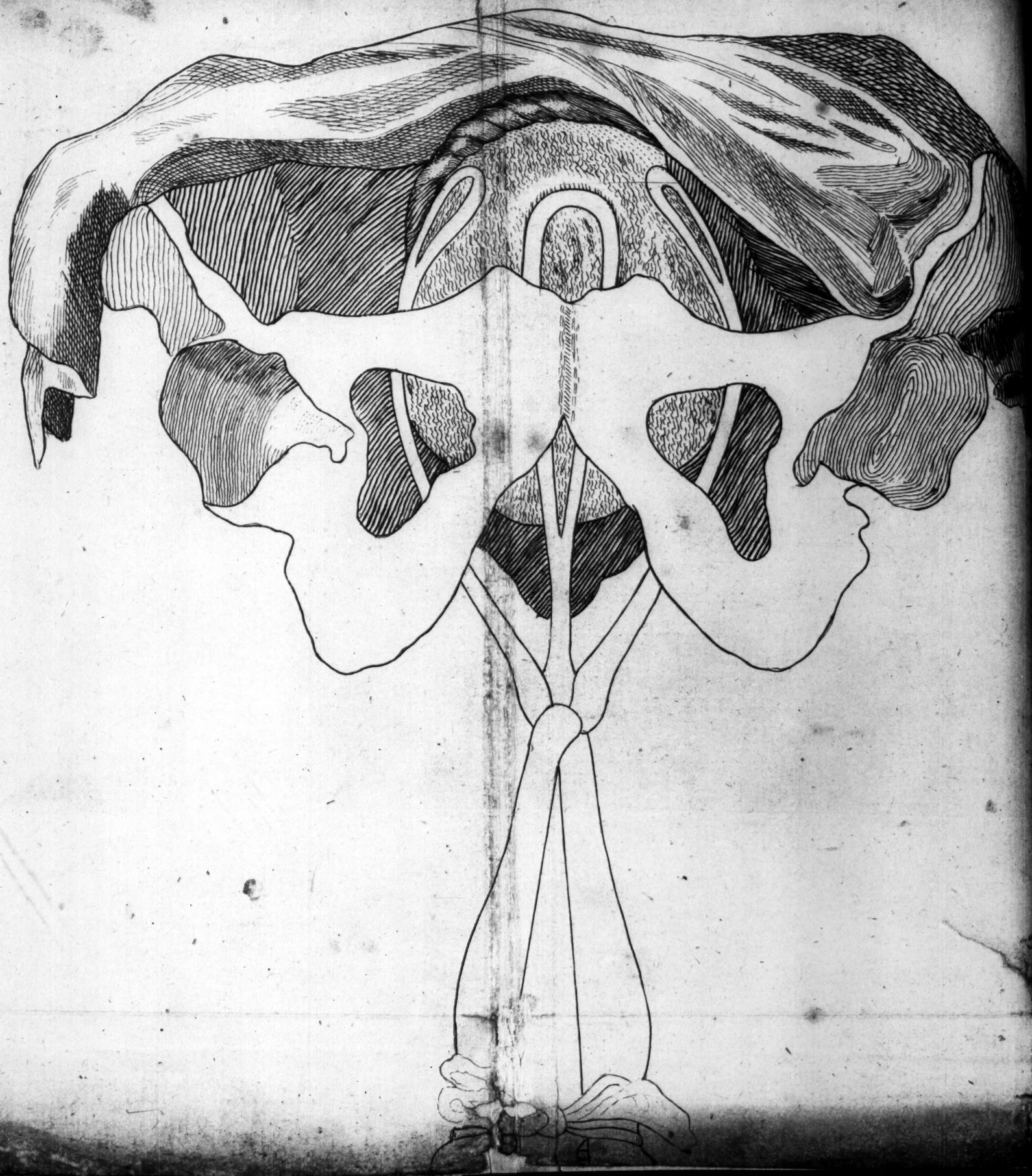


PLATE NNN.

FIG. 1.

A view of the ordinary Forceps as uſed by Dr. LEAK, with the addition of a pivot or nail with a ball-head, to favour the connection of a third blade or lever.

FIG. 2.

A view of the third blade with two ſockets to admit the pivot or ball-head of the nail ſhewn in fig 1, and to allow it to be ſhifted occaſionally.

Would not fixing the pivot in this blade be more commodious than the preſent diſpoſition?

FIG. 3.

A view of the head of the Fœtus inclavated in the brim of the pelvis, with the occiput preſſed againſt the oſſa pubis, to which laſt the third blade of Dr LEAK's forceps is applied with a view to bring it down into the arch of the oſſa pubis.

This figure ſerves to ſhew the advantageous way of applying the ordinary forceps, viz. the blades to the lateral parts of the head; and that the action of this inſtrument muſt be moſt ſucceſsful when the head is low or in the pelvis.





PLATE G.

FIG. 1.

A vertical and lateral section of the Uterus, Vagina, and Pelvis, exhibiting the child, with its head in the cavity of the pelvis, the face lodged in the cavity of the os sacrum, the vertex presented and the forceps applied--by BAUDELOCQUE.

FIG. 2.

The full-sized fœtal Skull in a side view--by SUE.

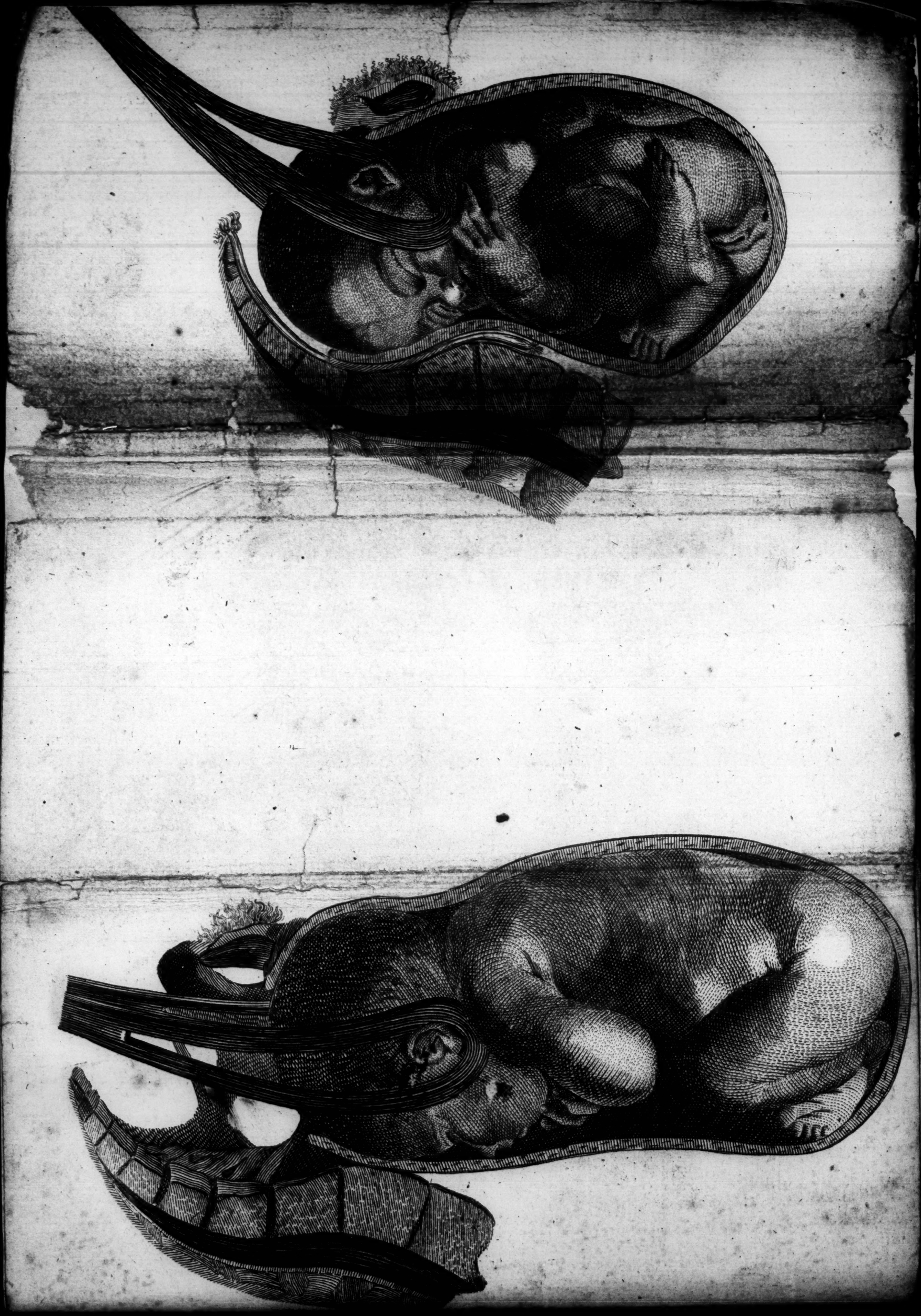


PLATE II.

FIG. 1.

A vertical and lateral ſection of the Uterus, Vagina, and Pelvis, exhibiting parturition in the ſame progreſs as in the former plate, the child's face turned ſomewhat to the ſide of the pelvis, and the forceps applied —by BAUDELOCQUE.

FIG. 2.

A vertical and lateral ſection of the Uterus and Pelvis, exhibiting the child's head in the brim, and the forceps applied——by BAUDELOCQUE.

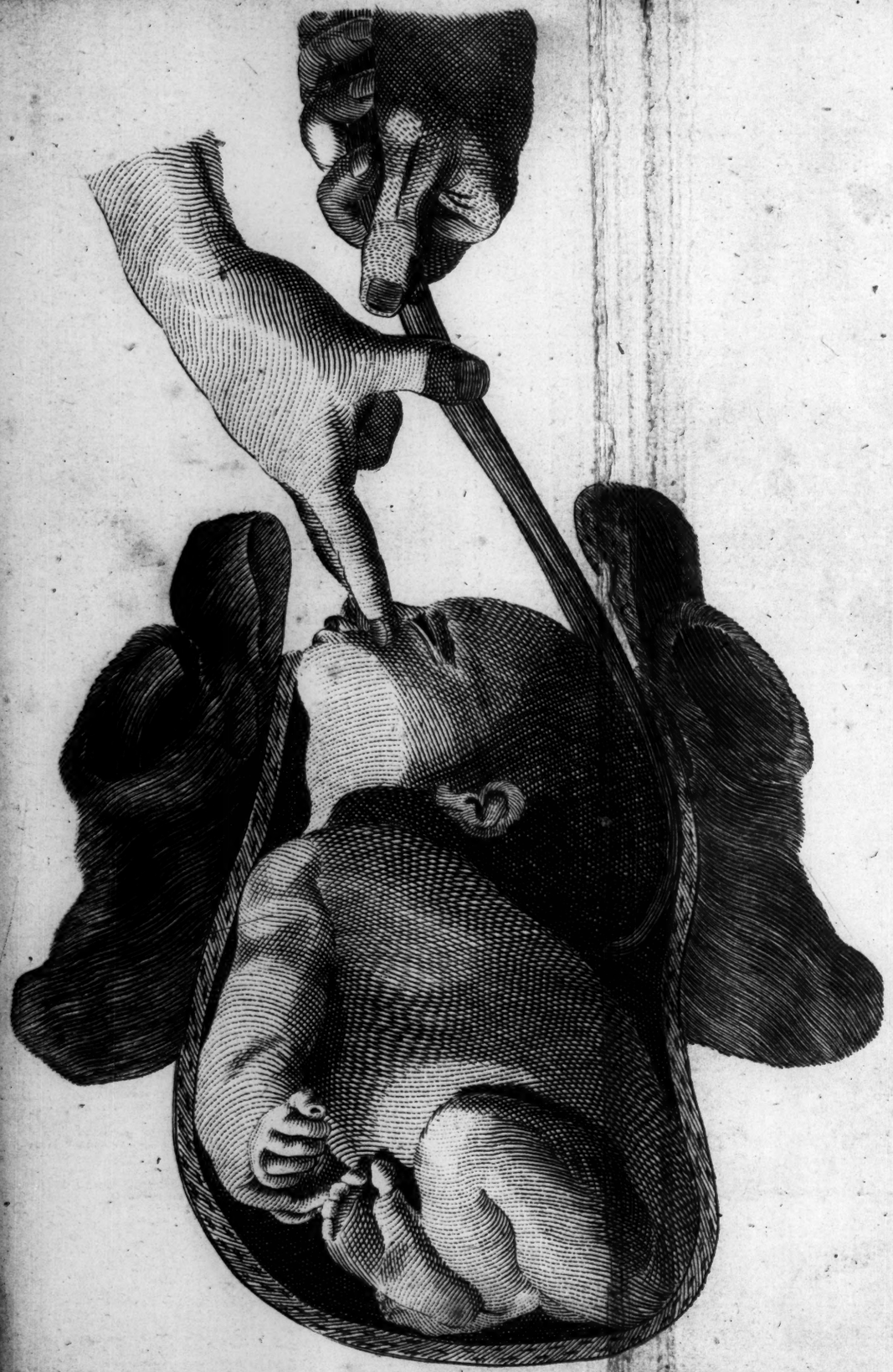




PLATE I.

FIG. 1.

A lateral and vertical ſection of the Uterus and Pelvis, exhibiting the child's head in the brim, the face turned towards the mother's ſide, and the forceps applied---by BAUDELOCQUE.

The form of the locking part of the forceps and the handles, is original.

FIG. 2.

A vertical and front ſection of the Uterus, repreſenting a face-preſentation, and the lever applied to the occiput, and the operator's fingers to the face---by BAUDELOCQUE.

The form of the lever is ſomewhat altered. It is ſuppoſed to be the living one.



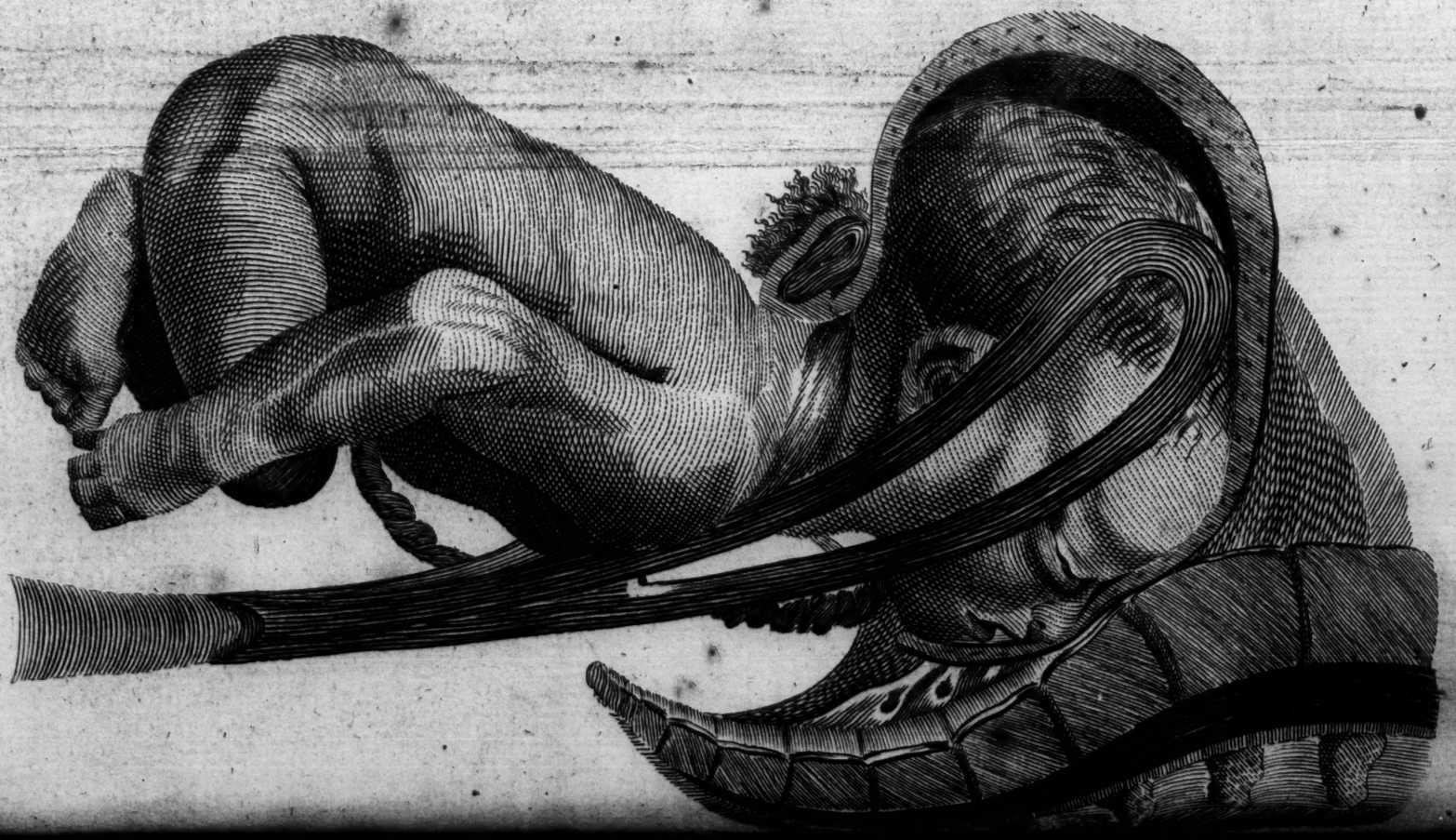


PLATE K.

FIG. 1.

A view of the Forceps locked, as in pl. I. fig. 1. applied to extract the head, the face turned to the ſide of the pelvis.

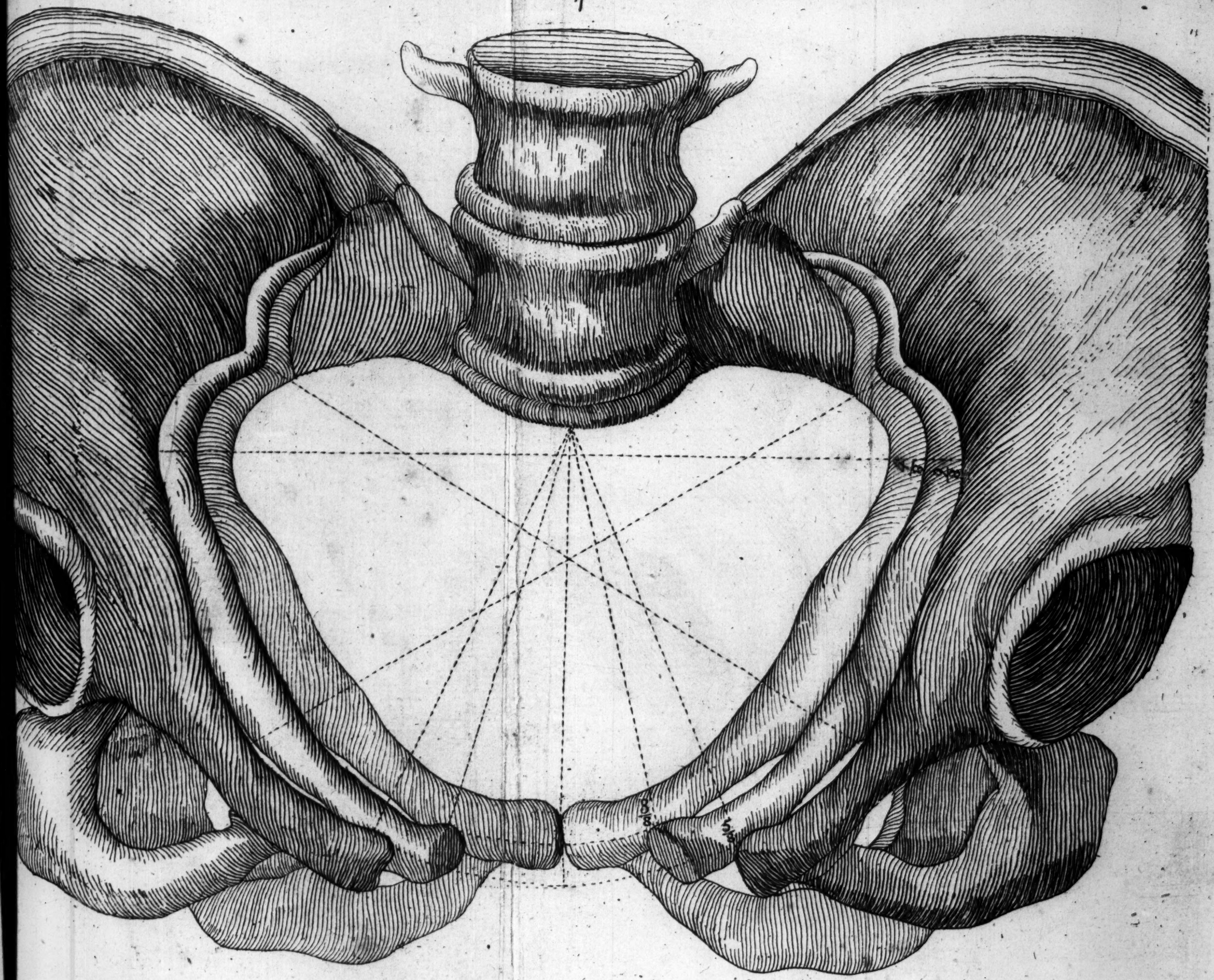
In the handle of the forceps is a ſcrewed nail with a broad head, which prevents the inſtrument from opening, during the operation, beyond the requiſite degree.

A contrivance of this kind ſerves as a *cephalometer*, even when the head is entirely above the brim.

FIG. 2.

A view of the Forceps uſed to extract the head, when the face is turned to the concavity of the os ſacrum.

1



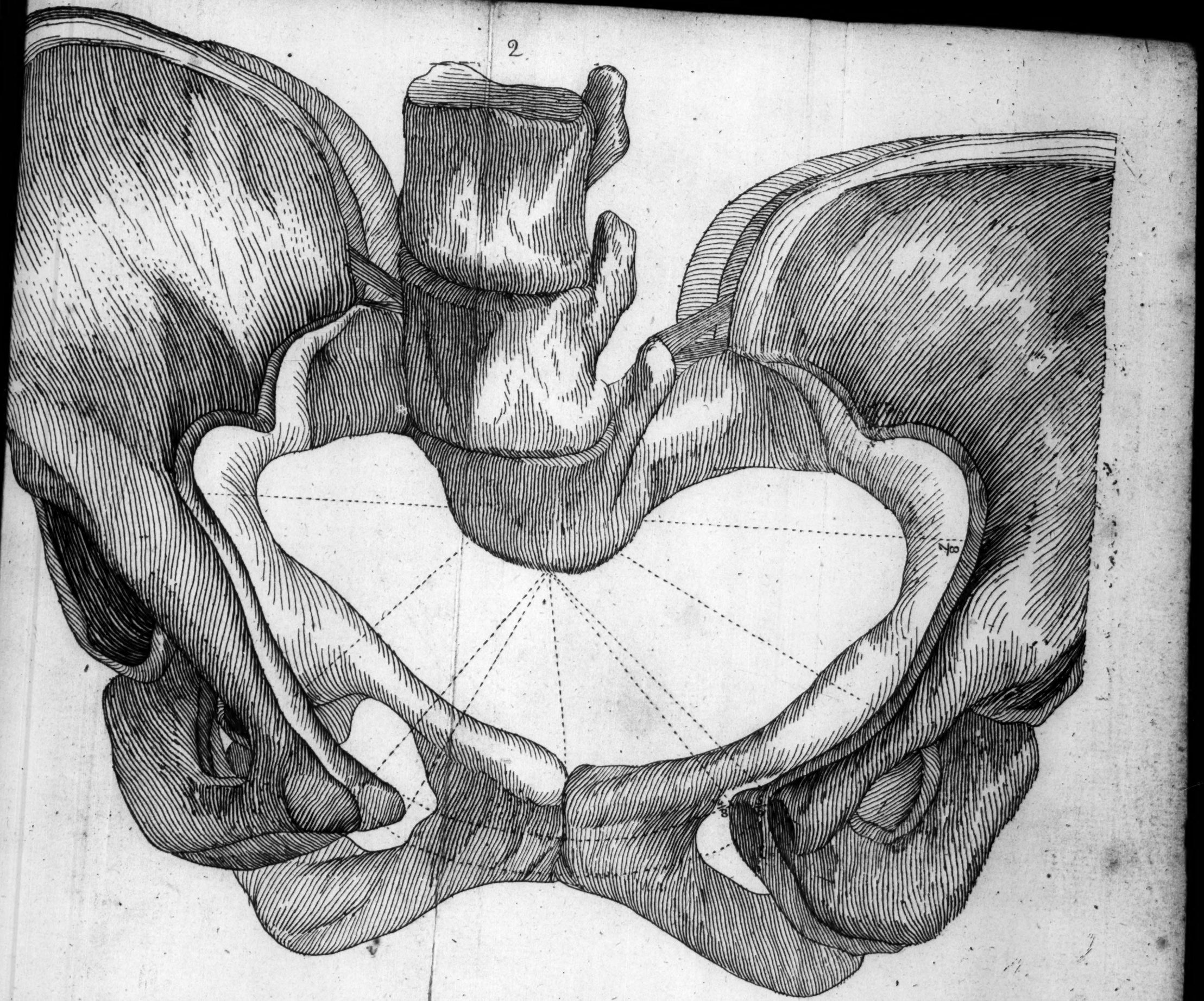


PLATE KK.

FIG. 1.

A view of the brim of the full-ſized well-formed Pelvis, and the change of capacity in conſequence of Pelvitomy or the Sigaultian operation--by BAUDELOCQUE.

The augmentation is proportioned to the mutual ſeparation of the oſſa pubis; and the quantity of it is diſtinguiſhed by the numbers on the diameters.

The poſterior ſymphyſes are proportionally lacerated.

FIG. 2.

A view of the brim of the full-ſized diſtorted Pelvis, and the change of dimenſion in conſequence of Pelvitomy---by BAUDELOCQUE.

It is plain that beyond a very limited point this operation cannot conduce to the delivery of the living child.

PLATE

PLATE KKK.

A view of various extracting inſtruments.

FIG. 1.

A ſmall Forceps, contrived by LEVRET, to extract the placenta, mola, &c. when this extraction is indicated by hæmorrhage, &c.

FIG. 2.

HERBINEAUX's Lever, which inſtead of the common handle has a ſyringe to which a proper tube may be fixed for making injections.

The ribbon favours the proper application during the drawing.

FIG. 3.

A Forceps intended to lay hold of the knees or elbows of the ſmall fœtus.

FIG. 4.

A double blunt hook. The large curvature is applied to the groin, and the ſmall one to the arm-pit, &c. as the caſe may indicate.

FIG.

FIG. 5.

A view of an elaſtic Extractor for the head of the fœtus, when impacted during the footling birth.

AAA Three elaſtic plates connected moveably at the upper part by the nail a. At the under part each is fixed to one of the three rings BBB, ſo as to move along with the reſpective rings.

C The central hole through all the rings to allow them to move around the pivot D of the handle repreſented in fig. 6.

FIG. 7.

The elaſtic Extractor, with the plates collected to one ſide to allow it to be introduced like the lever, they are then ſpread as repreſented in fig. 6.

FIG. 8.

The whale-bone fillet, intended to be applied on the child's head in lingering parturition to favour the extraction; the whale-bone may be retired after the fillet is applied.

PLATE

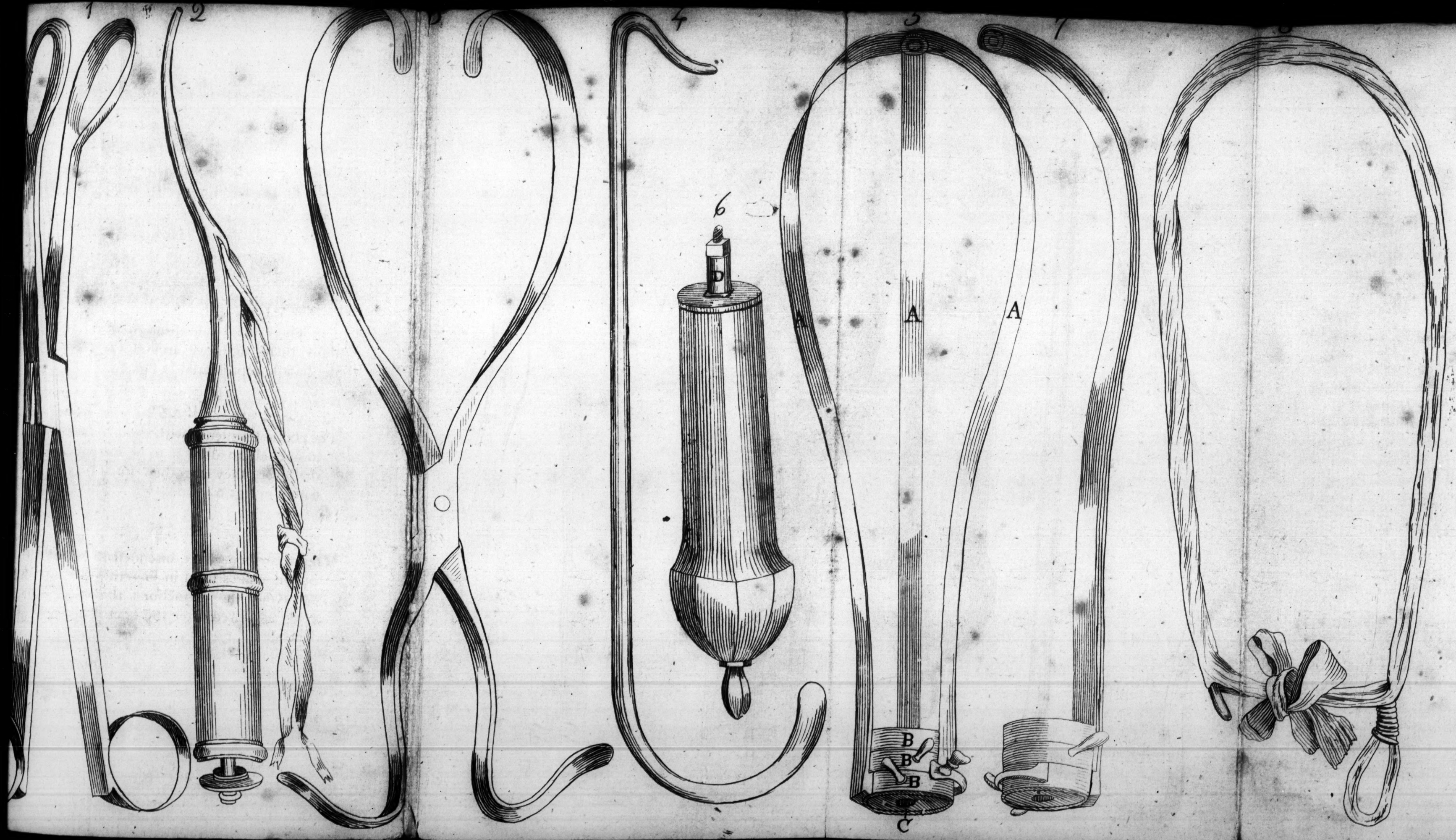

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8
A
A
A
B
B
B
C

PLATE KKKK.

FIG. 1.

Repreſents the perforator of MAURICEAU, intended to make the opening in excerebration.

FIG. 2.

The Extractor or Tire-tete of MAURICEAU.

A A circular plate, which, by means of a hinge, readily becomes parallel to the other B, which is immovably fixed to the canula C.

D A female ſcrew to be turned by the fingers, which approximates the plate A to the plate B; the former being previouſly introduced into the cavity of the ſkull, through the hole made by the perforator fig. 1. and thereafter uſed to extract the head.

FIG. 3.

Repreſents the ſtraight ſharp Crotchet of MAURECEAU.

The point A is concealed, as the dotted lines ſhew by the caſe B, during its introduction; which is afterwards retired by means of the hook C, which makes the handle of the caſe glide in that of the ſharp hook ſo as to diſengage them.

FIG. 4.

Repreſents the Terebra Oculta of OULD, converted by BURTON into a Terebra and Extractor.

A The perforator or terebra, connected with the handle B.

C The canula, which ſlides upwards and downwards, and is occaſionally fixed by the ſcrew-nail in the ſlit D.

EE Two wings that can be occaſionally extended in the way ſhewn by the dotted lines, ſo as to become an extractor.

The wings are moved by means of a button E, on the handle, connected with a wire F, ſeen partly above the canula.

FIG. 5.

Repreſents the large Sciſſars, employed occaſionally to perforate the head.

AA Stops to prevent over-penetration.

FIG. 6.

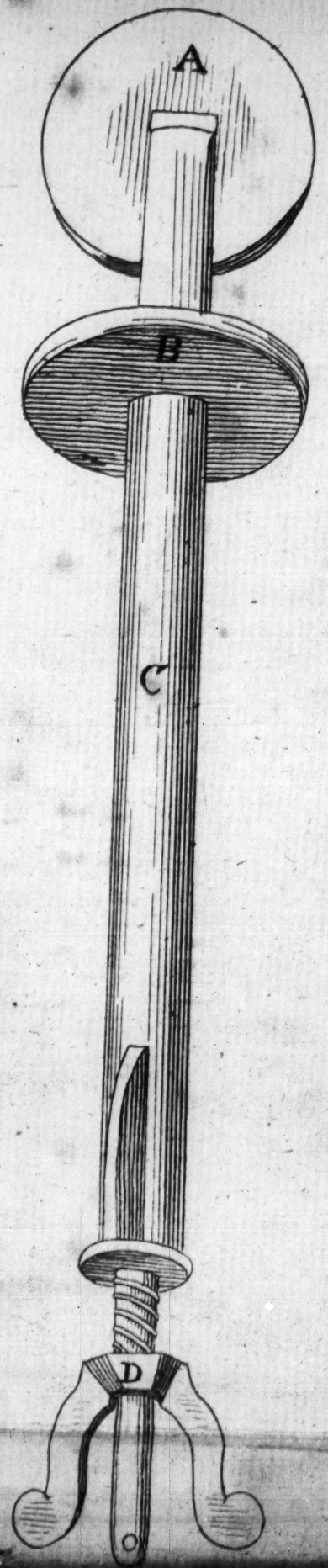
Repreſents two Crotchets, properly locked in the manner of the common forceps, to be uſed ſeparately or together.

A A front view of the point of one of the crotchets.

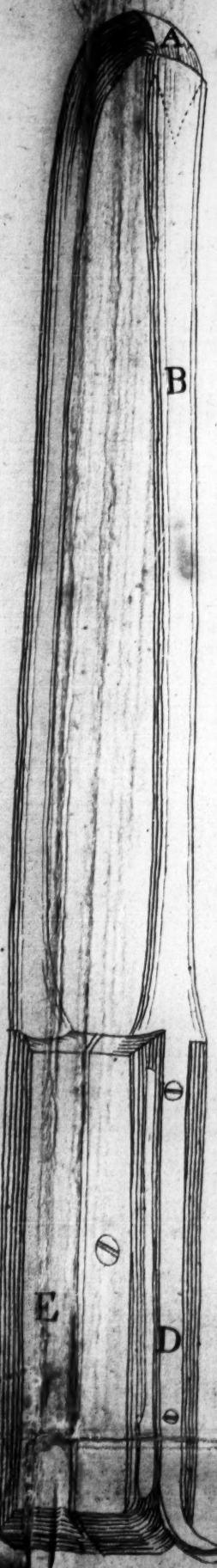
FIG.

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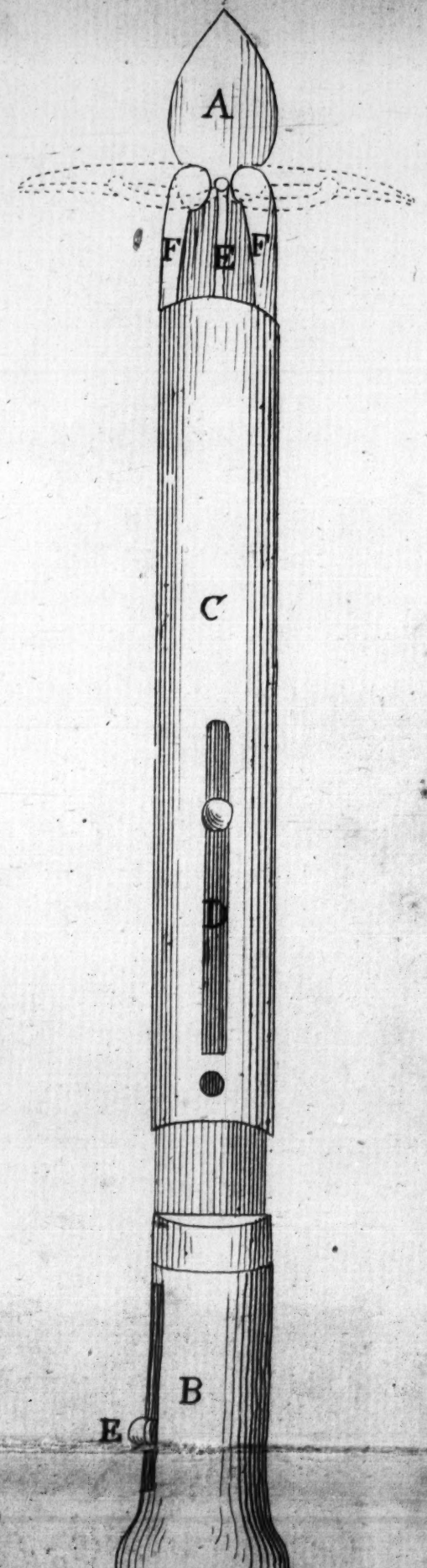
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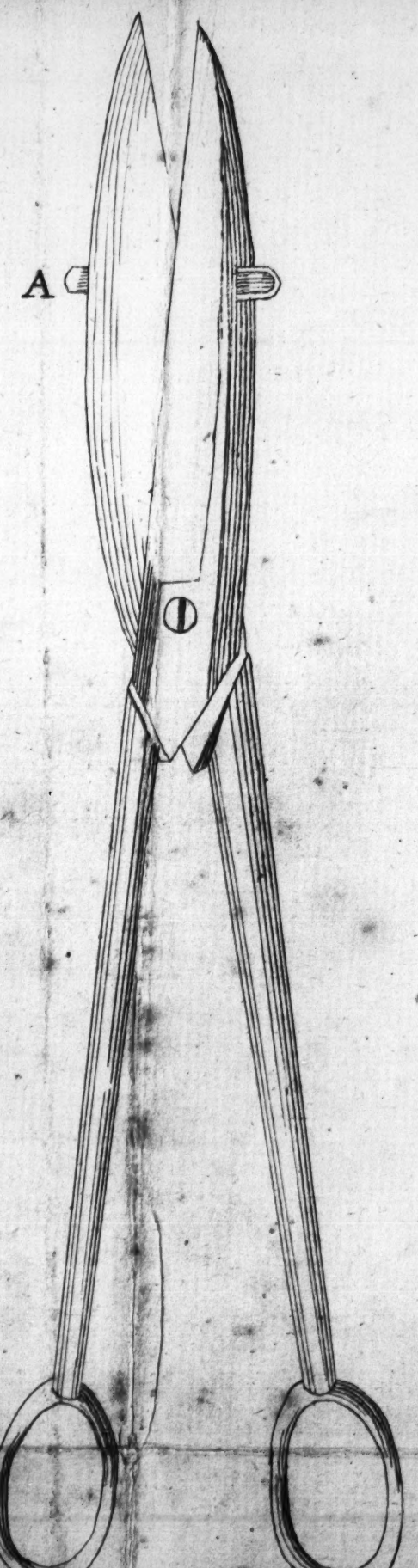
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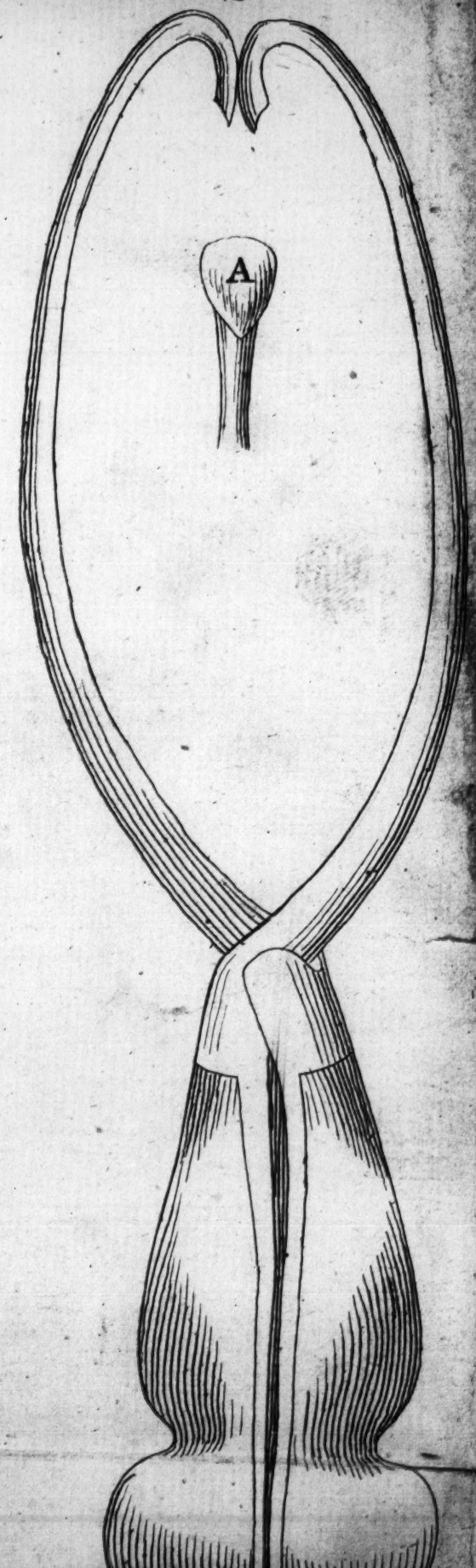
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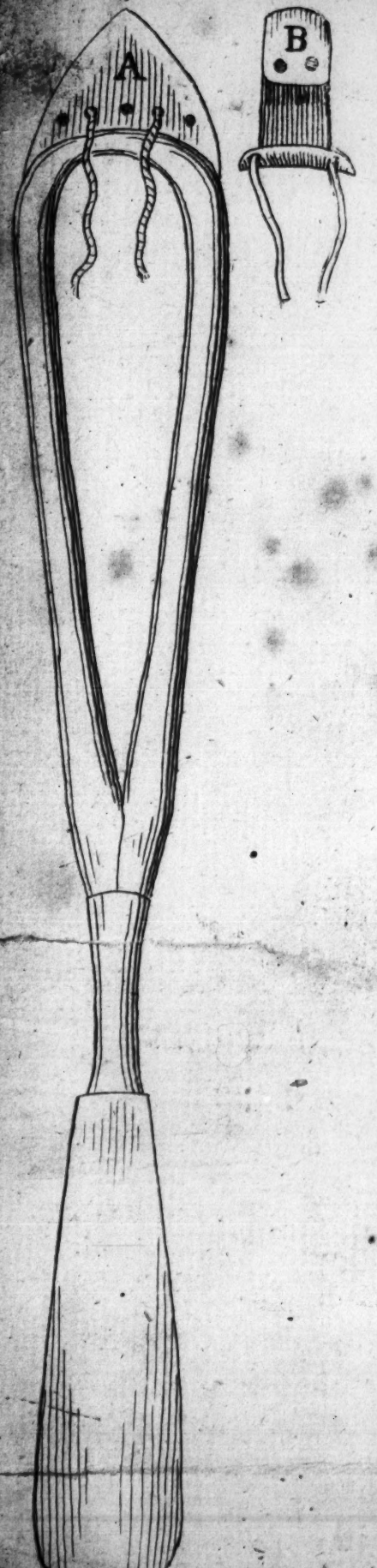


FIG. 7.

Repreſents the common or living lever, in order to ſhew how occaſionally it may be converted into a perforator by tying on it the cutting point; or into a crotchet by fixing on it in like manner the hook B C, ſeen before and behind.

The point and the hook being comparatively ſmall, are eaſily portable, and together with the lever are nearly ſufficient for moſt caſes of lingering birth.

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C

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PLATE 5K.

FIG. 1.

A view of the ſcrewed Forceps.

Theſe upon the whole are of the ordinary ſhape, only ſtronger, and the handles forked ſo as to admit the male ſcrew AA, which approximates the handles with any degree of force by means of two female ſcrews BB.

FIG. 2.

Repreſents the Ring Scalpel of Dr. SIMPSON, for opening the head in embryotomy.

FIG. 3.

Exhibits the toothed forceps of PLENCK, to catch particular parts of the child in order to extract them.

FIG. 4.

A view of the Sciſſar-Forceps.

AA The chops, ſimilar to thoſe of the lithotomy forceps.

BB The edges of the ſciſſars, which, except when intended to cut, are entirely concealed in correſponding grooves in the chops.

CC The handles of the ſciſſars which project beyond thoſe of the forceps DD, ſo that the ſciſſars

ſciſſars may be acted with independently of the forceps.

FIG. 5.

Repreſents the Pelvimeter of M. COUTELAY, of Paris.

A The poſterior chop, to be applied to the promontory of the os ſacrum.

B Anterior chop, which may be moved by the hooked handle C, till it be ſtopped by the pubes.

D A ſcale which ſhews the diſtance of the chops, and conſequently the length of the ſhort diameter of the pelvis.

E A ring connected with the poſterior chop, into which the finger is put to hold it ſecurely.

FIG. 6.

Repreſents a fillet formed into a nooſe, to be held on the fingers, and introduced into the vagina ſo as to be paſſed over the foot of the child, to ſecure it till the other be ſought for in the operation of turning.

FIG. 7.

Repreſents Dr. HUNTER's curved probe or nooſe, with a hole in its point, mounted in a handle with knobs, to perform the ligature of polypus in the vagina, ſo as to be eaſily removed if indicated.

FIG.

FIG. 8.

Repreſents two curved tubes, containing a thread, the ends of which hang from their inferior apertures, which may be joined together ſo as to become one by means of the groove A in the one, and dove-tail B in the other.

Theſe are intended to tie the polypus in the vagina, and are recommended by GOERZ.

FIG. 9.

Repreſents the double tube for ligature of polypus, by LEVRET.

It may carry a gold or ſilver wire inſtead of a thread.

GOERZ and others have taken their ideas from this.

FIG. 10.

Repreſents a large tube with holes in one extremity, and a bladder or bag tied to the other, for making injections into the vagina.

A Another form of an injecting tube for the ſame purpoſe.

PLATE

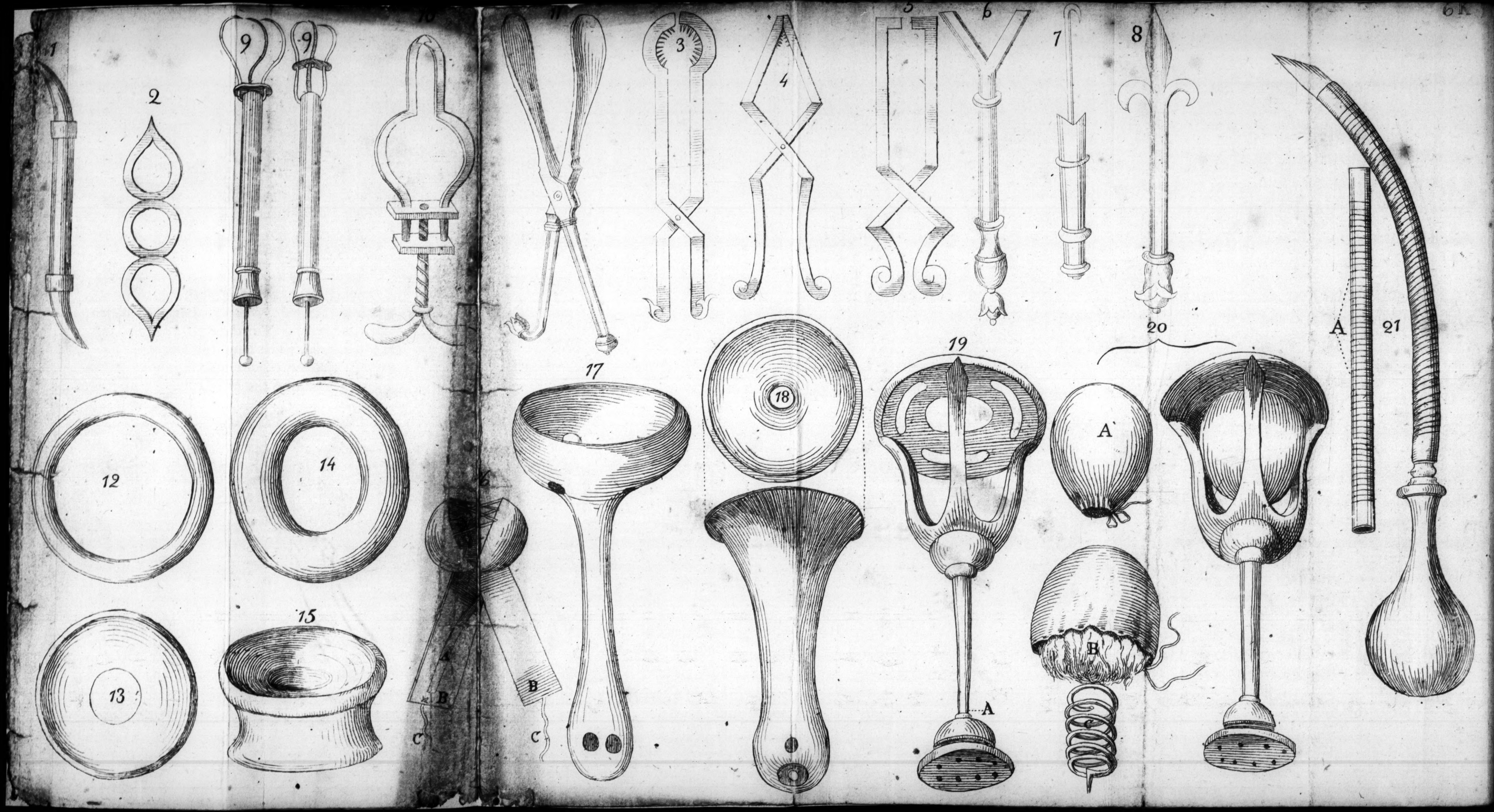

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A
B
C
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A
20
A
B
C
A
21

PLATE 6K.

FIG. 1.

The Forma Spatumilis of ALBUCASIS for opening the child's head.

FIG. 2.

A Spatumalis of another form.

FIG. 3.

The Almiſdach of ALBUCASIS, for opening and extracting the child's head.

The Miſdach is of the ſame form, but ſmaller.

FIG. 4.

The Forfex of ALBUCASIS to cruſh the child's head.

FIG. 5.

The Vertigo of ALBUCASIS, with which he opened the os internum uteri.

FIG. 6.

The Impellens of ALBUCASIS, to puſh the child in the uterus upwards.

FIG. 7.

The Forma Uncini or ſtraight Hook of ALBUCASIS.

FIG. 8.

Another Forma Uncini, with a perforator and hooks.

FIG. 9.

The Pes Gryphii of PARÆUS, to extract moles.

FIG. 10.

The Pes Gryphii of another form, to extract the child's head.

FIG. 11.

The Forceps Longa et Terſa of PARÆUS, to extract the head of the child, left detached in the uterus.

FIG. 12.

A circular Ring-Peſſary.

FIG. 13.

A circular Ring-Peſſary, broad in the brim.

FIG. 14.

An oval Peſſary.

FIG. 15.

An oval Peſſary of another form.

FIG.

FIG. 16.

Dr. SIMSON's ſpherical Peſſary, which may be enlarged in one direction, by means of the ſpring A, between the blades or handles B B, and the opening may be limited by tying the ſtring cc.

FIG. 17.

A cup-like Peſſary, with a ſtalk and holes.—The os internum reſts on the cup, which is duly ſupported by a ribbon, connected with the ſtalk by means of the holes.

FIG. 18.

A ſtalked Peſſary with a flattiſh cover inſtead of the cup, which may be occaſionally removed.

FIG. 19.

Another ſtalked Peſſary, which has motion at A, by means of a ball and ſocket, by which it gives leſs irritation.

FIG. 20.

Another ſtalked Peſſary, with a cuſhion to ſupport the os internum.

The cuſhion A is rendered ſoft and elaſtic by hair-ſtuffing, and reſting on a ſpiral ſpring B.

FIG. 21.

The curved Trocar, with a flexible canula which I have invented, for perforating the bladder from the vagina, or that of the male from the rectum.

The canula, when the perforator is retired, becomes ſtraight, and eaſily yields to the form of the parts, and gives leſs irritation when left in the wound than the rigid one.

The canula, when lapped in ſoft rag, may be uſeful in the os internum, after hyſterotomy, to diſcharge the blood, &c.

PLATE

Fig 3

Fig 4

Fig 5

Fig 6

Fig 7

Fig 8

PLATE L.

FIG. 1.

A view of the Living Lever without its covering, in order to explain its mechaniſm.

AA Jointed pieces which admit of inward flexion.

BB Two ſtrips of ſteel riveted to the piece at the point, ſtretching along the joints lodged in a groove, to the handle, and are there connected with the broad-headed ſcrewed nail c; which, by being turned, gives the requiſite flexion and extenſion.

DD A grooved piece of ivory, ſteel, ſilver, &c. to be occaſionally tied upon the point of the lever, which converts it into a reductor for replacing the umbilical chord.

It has already been ſhewn, that by the addition of a point it has been converted into a perforator; and of a hook into a crotchet, pl. KKKK, fig. 1.

FIG. 2.

A ſide view of the Living Lever properly covered, a ribbon fixed near its handle, which may be employed as a fulcrum.

The dotted lines ſhew this lever when it is nearly in its extended ſtate.

FIG.

FIG. 3.

A view of the univerſal Pelvimeter, with its ſcale of inches and eights, and ſlider.

The dotted lines ſhew the manner in which the ſcale is moveable to render the pelvimeter conveniently portable.

FIG. 4.

A view of the Female Catheter, with a ſcale of inches and eights, by which it becomes a pelvimeter as to its ſhort diameter.

FIG. 5.

A view of the Lever, its handle upwards, and a ſhallow cup-like piece of wood or metal fixed upon it, to be properly ſtuffed, by which it is occaſionally converted into an impellens.

FIG. 6.

A view of the flexible Crotchet.

FIG. 7.

A view of the flexible Blunt-Hook.

FIG. 8.

A view of Dr. DENMAN's Perforator.

PLATE

Fig 3

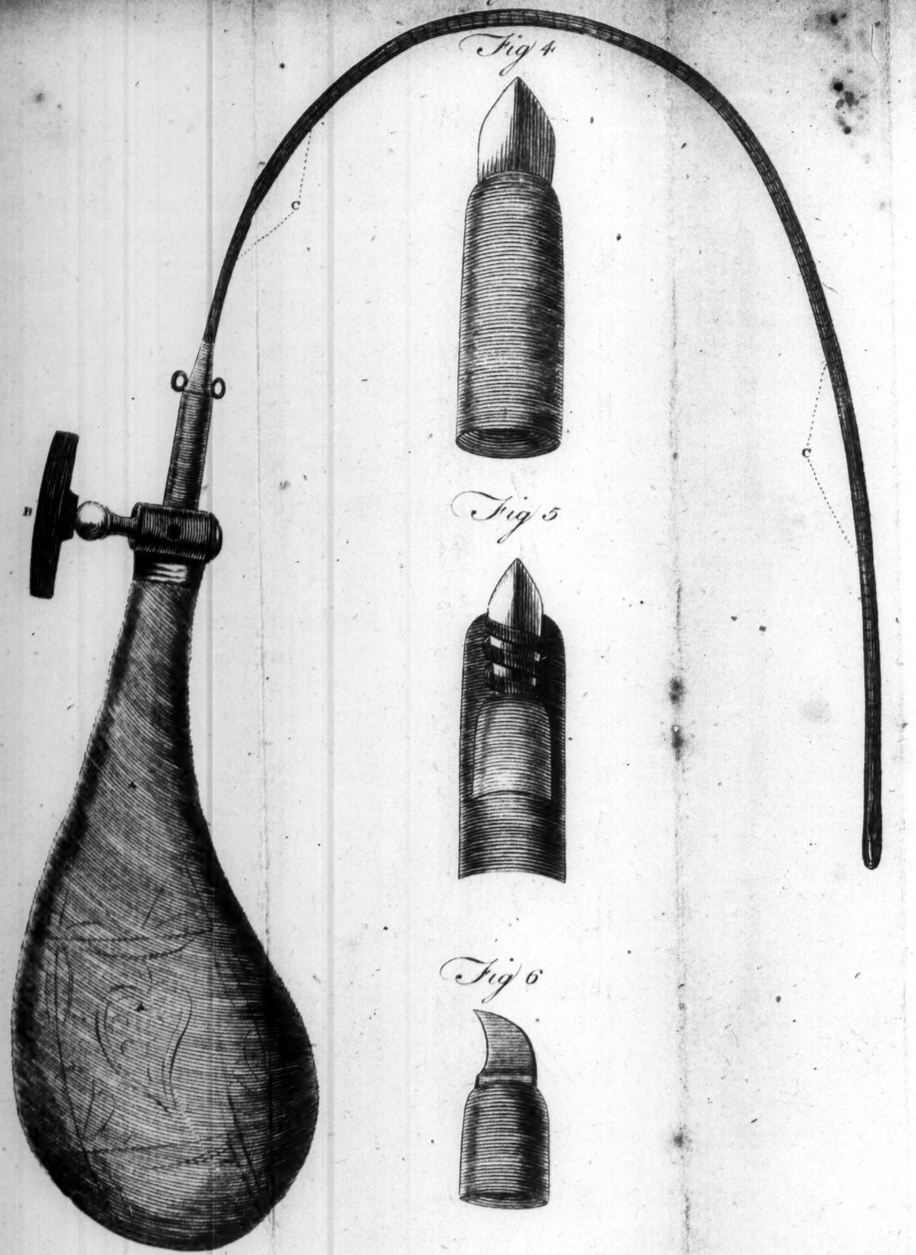


Fig 4

Fig 5

Fig 6

Fig 2

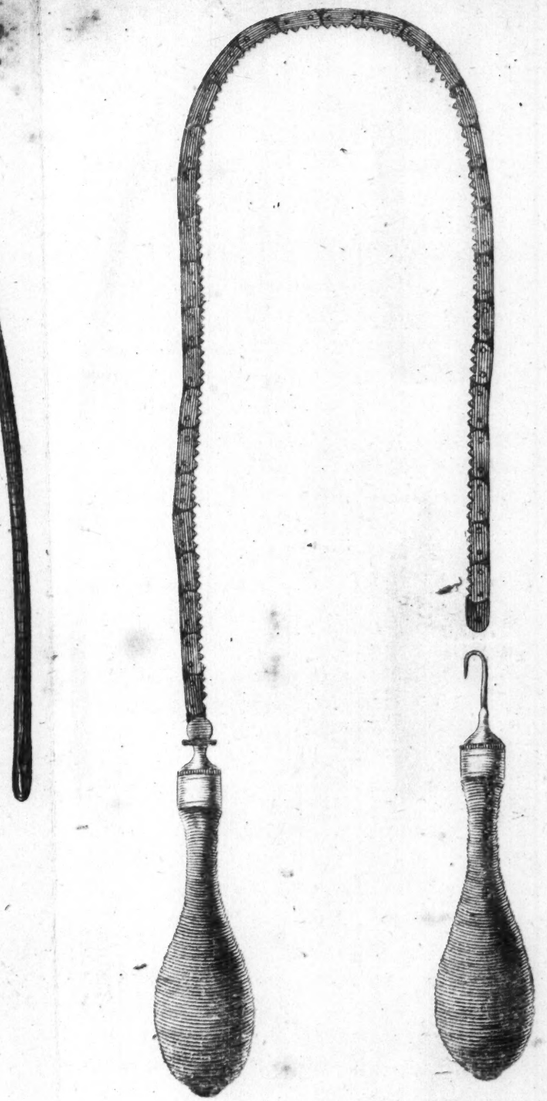


Fig 1

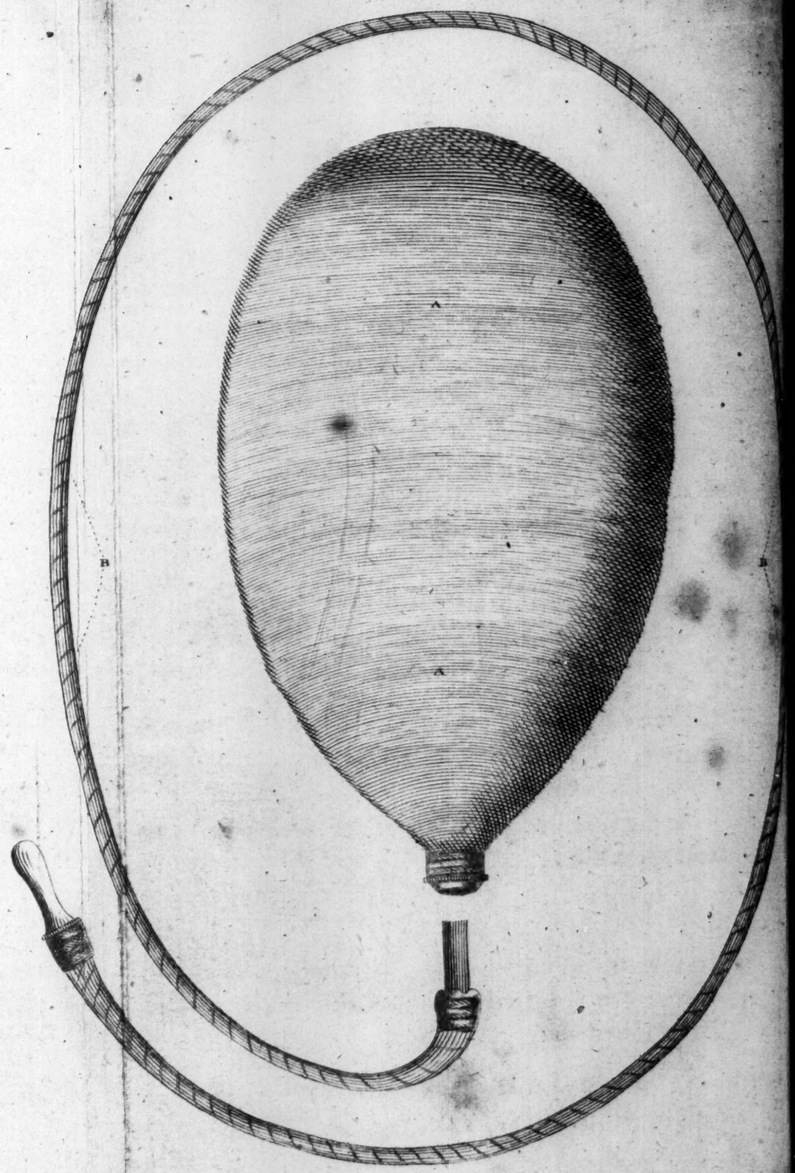


PLATE M.

FIG. 1.

A view of the Air-Peſſary.

AA The inflated ſmall bag or bladder provided with a valve to prevent the eſcape of the air.

B B The flexible tube, for procuring the inflation to the requiſite degree.

A great ſimplicity may be attained as to this peſſary. A piece of inteſtine or a ſmall bladder without a valve, may be employed.

Does its uſe extend to retention of prolapſus ani?

FIG. 2.

A view of a flexible Saw.

One of the handles, by means of a hook, is removeable, to favour its being applied between or behind bones.

A cutting edge, inſtead of teeth, gives a flexible knife.

FIG. 3.

A view of an apparatus for injecting air, &c. into the lungs, ſtomach, and rectum, and for extracting the ſame.

AA An elaſtic bag provided with a valve B, which, by a lateral opening, occaſionally admits

mits pure air. To its extremity is accommodated a flexible ſilver tube cc, to be introduced to a proper degree into the glottis, &c.

FIG. 4.

A view of the Embryotomy Knife, with its blade projected.

This, when the finger is retired, is retracted entirely within the ſilver caſe, by means of a ſpiral ſpring, as repreſented in

FIG. 5.

Which is a longitudinal ſection of the exterior caſe.

FIG. 6.

A view of the Finger-Scalpel.



PLATE

1

A A

B

3

A A

B

2

A

B

EXPLANATION OF THE PLATES.

PLATE O.

FIG. 1.

Repreſents a complete Prolapſus Uteri---by RUYSCH.

AA The os externum.
B The uterus.
C The os internum, nearly undermoſt.

FIG. 2.

Repreſents a Prolapſus of the Schirrus Uterus ---by RUYSCH.

AA The os exteruum.
B The uterus much enlarged and indurated.
C The os internum diſcharging ſome drops of blood.

FIG. 3.

Repreſents the Inverſio Uteri---by RUYSCH.

AA The os externum.
B The uterus newly after parturition, inverted, conſequently the os externum does not appear.

FINIS.

LIST

OF

MEDICAL IMPROVEMENTS

BY

JOHN AITKEN, M. D. &c.

Ad utilitatem vitae omnia conſilia factaque noſtra dirigenda ſunt. QUINCTIL.

In ANATOMY.

1. THE continuity of the vagina uteri, uterus, and integuments called cuticle and true ſkin, and, conſequently, the real ſtructure of the two former.

2. The continuity of the chorion and amnios, and the cellular ſubſtance, true ſkin, and cuticle of the body of the fœtus, like that of the placental and permanent portions of its vaſcular ſyſtem; and, conſequently, its real oeconomy as to connection with the uterus, ſource of the amnial fluid, nutrition, &c. and the futility of regarding theſe membranes, as analagous to thoſe of the egg.

3. The continuity of the villous and nervous coats of the inteſtine, with the cuticle

 and

and true ſkin; and, conſequently, the ſtructure and oeconomy of that bowel.

4. The continuity of the two interior coats of the bladder of urine, and the cuticle and true ſkin, and, of courſe, the proper ſtructure of that organ.

5. The continuity of the bronchial membranes, and the cuticle or true ſkin, which illuſtrate the ſtructure and function of the lungs.

6. The ſimilarity of the cavernous part of the penis and bone; and, conſequently, that the former may be regarded as flexible bone. This idea is corroborated by the preſence of bone in this organ in the dog, &c.

7. The juſt form and dimenſions of the pelvis of the human female; and, conſequently, the real path and poſition of the child's head during parturition, and its various relative attitudes at the different points of its progreſs.

8. Hemiſpheres, that favour the diſſection of the brain.

9. An apparatus that facilitates the injection of quickſilver, or other proper ſubſtances, into the minute veſſels of animals, ſuch as the lymphatic, ſeminal, &c.

In PHYSIC.

1. A Noſology, ſimple and natural, calculated to eſtabliſh the healing ſcience on the ſolid foundation of reaſon and experience, to aſcertain



aſcertain the juſt limits of art in the cure of diſeaſe, and to lead to a philoſophical ſimplicity in practice.

A reprobation of preceding noſological ſyſtems, eſpecially as to proximate cauſes, and of many ſuppoſed remedies, is a neceſſary conſequence.

2. A conſtruction of hoſpitals, or apartments for the ſick, which ſecures a full and conſtant ventilation, and permits the patients occaſionally to be placed in the air.

3. A ſick-bed, in which the patient is able occaſionally to raiſe himſelf to the ſitting attitude, or to any degree betwixt it and the horizontal one.

In SURGERY.

I. A SYSTEMATIC NOSOLOGY.

II. OPERATIONS.

1. Opening the internal jugular veins.

2. Opening the pericardium, when dropſical, without wounding the pleurae.

3. Injecting the lachrymal ducts with quickſilver, to remove obſtruction.

4. Method of curing hernia radically.

5. Trepanning the ſpine.

6. A mode of replacing the retroverted uterus.

7. Parahpymoſis operation.

8. Pelvitomia nova.

III. INTSRUMENTS.

1. Stump forceps.
2. Polypus-ſciſſars.
3. Tooth extractors of various kinds.
4. Cataract knife.
5. forceps.
6. extractor.
7. Cyſtotomus.
8. Speculum oculi.
9. Trepan with inward teeth, &c.
10. Perforator for the fiſtula lachrymalis.
11. Knife for phymoſis, fiſtula ani, abceſs, &c.
12. Lithometer.
13. Lithotomy forceps, for extraction.
14. Lithotomy forceps, for dividing the ſtone when too large.
15. Inflator for the lungs, to be uſed when reſpiration is not commenced at birth, or afterwards ſuppreſſed by drowning, ſtrangulation, or any other cauſes of aſphyxia.
16. Apparatus for commodiouſly injecting tobacco ſmoke, air, &c. through the anus into the inteſtine.
17 Apparatus for the adminiſtration of clyſters in caſes of delicacy, and effectually to throw them high in the inteſtine.
18. Splints for the ſimple and compound fracture, to ſecure retention, and permit occaſional dreſſing.
19. Fracture machines, for procuring retention, and removal with ſafety from place to place.

20. An

20. An ambe for reducing the luxated arm, by hoiſting and jerking, as circumſtances may demand.

21. Foot lever to extend the luxated arm, that may be uſed by the ſurgeon without aſſiſtants.

22. Extenſors for the luxated thigh.

23. A tournequete, and its extended application.

24. Flexible trocar.

25. tubes for bronchotomy, &c.

26. Knife partly flexible.

27. Lithotomy gripe.

28. Inhaler.

29. Emulger.

30. A jugum penis.

31. A ball extractor.

32. Saw for partial amputation of the tibia, &c.

33. Apparatus for retaining the broken or wounded tendo Achillis.

34. Apparatus for club-foot and weak joints.

35. Stump bandage.

36. Tapping bandage.

37. Operation table.

38. Gorgeret.

39. Lancet.

40. Seton lancet.

41. Seton lancet and canula.

42. Variolous box.

43. Amputation retractor.

44. Harelip

44. Harelip forceps, to ſuſtain the portion of the lip during exciſion.

45. Harelip knife, that ſuſtains and cuts the lip at once.

46. Needle.

47. Extended uſe of ſponge-dreſſing.

48. Injector, or ſcrewed-ſyringe.

IV. IMPROVED OPERATIONS, viz.

1. Trepaning.

2. Extraction of the cataract.

3. Harelip operation.

4. Bronchotomy.

5. Perforation of the cheſt for hydrothorax, empyema, &c.

6. Amputation, eſpecially as to its mode at the ſhoulder and hip joints.

7. Flap amputation.

8. Hydrocele operation.

9. Gaſtroraphy.

10. Lateral cyſtotomy.

11. High cyſtotomy.

12. Spring artificial teeth, that require no tying, of various materials.

In MIDWIFERY.

1. Obſtetrical forceps, altered ſo as to protect as much as may be both child and mother, while the extracting power is not diminiſhed.

2. Obſtetrical ſciſſars.

3. Living forceps.



4 Living